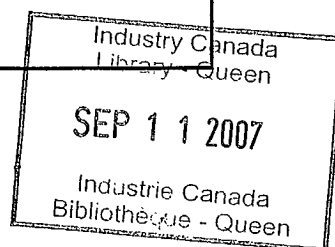


**Definitions of Small Business:
Issues for Public Policy**



**Prepared for
The Research Advisory Committee on Entrepreneurship
Entrepreneurship and Small Business Office
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BACKGROUND AND OBJECTIVE

This report addresses two objectives:

- to document definitional issues pertaining to small business research; and,
- to familiarize members of the Research Advisory Committee on Entrepreneurship (RACE) with the nomenclature and terminology used to describe the Canadian small business marketplace.

To accomplish these objectives the report begins with a taxonomy of various types of small businesses. This is followed by a sampling of various definitions employed by stakeholders. The report then "maps" these definitions and taxonomies on the major Canadian statistical databases. The report closes with a discussion of implications for research and policy.

WHAT IS A SMALL BUSINESS?

MacIntosh (1994, p. 51) asks if "...small companies [are] very different from big companies." He argues that there are significant differences. For example, unlike large firms, the personal assets of small business owners are often at risk if the firm cannot pay its debt obligations. Small businesses tend to be more highly leveraged than big businesses. They are therefore more vulnerable to general economic fluctuations than are less leveraged, larger firms.

This agrees with Storey (1994) who suggests that the fundamental characteristic, other than size, that distinguishes small from large firms is the higher probability that small firms will cease to trade.

This raises the question - what constitutes a small business? There is no consensus on what the terms "small business", "business owners" or even "SME" embrace and hence, no census of small business in Canada. Small business means different things to different people. Small business is defined according to the perspective, and

experience of who is defining the firm.

As indicated in Table 1 stakeholders tend to qualify small businesses in terms of revenue and employment, but not consistently. In a survey of size criteria employed by the OECD, Industry Canada Entrepreneurship and Small Business Office (ESBO, 1989) finds that definitional criteria vary for firms and industry. For example, Belgium qualifies firms with less than 500 employees as "small" whereas Korea and Japan use a 300-employee limit. Australia defines a small business as one with less than 20 employees and a medium business as one with less than 100 employees. Chinese Taipei and Thailand use size criteria of less than ten employees to constitute a "small business" and firms with up to 100 employees are deemed "medium-sized" businesses (see Appendix A).

Table 1
What is a SME?

Corporations can be categorized according to size by the number of employees, asset values, annual sales or revenues, or borrowing facility. Statistics Canada, in much of its work related to SMEs, uses the number of employees as the defining characteristic. It defines a small business as one with less than 50 employees, and a medium-sized business as one with between 50 and 100 employees. The Canadian Federation of Independent Business, in its work on small business uses the definition of fewer than 20 employees and/or a bank lending facility (as defined by the size of loans outstanding from chartered banks) of \$500,000. The Canadian Bankers Association uses a lending facility of less than \$1 million and/or less than \$5 million in sales.

Source: Carolyn Conner, Alternative Source of Debt Financing.
Published by the Conference Board of Canada, March, 1995, p. 2.

There is a need nevertheless for committee members to have a starting point if research initiatives are to influence policy effectively. Without such understanding erroneous findings are possible. For example, Arend et al (1997) in a seminal study of Canadian job creation employing Longitudinal Employment Analysis Program (LEAP) data found that most job creation is attributable to entries into the LEAP file. What does this mean? One interpretation may assume that entry = birth. This findings may lead readers to inappropriate interpretation of wording. However, in order qualify for the LEAP data file the business must employ at least one individual and issue a T-4 slip. Hence "entry" could mean that an existing business has grown to the point that it has hired its first regular employee. Given the number of self-employed Canadians the number and nature of firms on the LEAP file is likely to be biased towards larger entities.

In order to understand better the composition of the small business landscape and to familiarize RACE members with frequently-cited terms and data the following small business taxonomy is presented. This information is intended for discussion purposes.

A TAXONOMY OF THE SMALL BUSINESS MARKETPLACE

The term SME embraces a wide variety of businesses. For the record, the three legal forms of business (corporation, partnership, and sole proprietorship) are defined here. In legal terms, a "**corporation**" (also known as a limited company) is a legal entity or person that can enter contracts and own property. It is a separate and distinct from its owners and managers. Corporations can have unlimited life. Ownership can be divided into shares of equity and they limit the liability to their owners to the book value of the shares.

A "**partnership**" exists whenever two or more individuals, corporations, trusts, or partnerships join together to carry on a trade or business. Each partner contributes money, labour, property, or skills to the partnership. In return each partner is entitled to a share of the profits or losses in the business. Partnerships operate under different degrees of formality ranging from oral understandings to formal written agreements. The partnership is bound by the actions of any member of the partnership, as long as these are within the usual scope of the operation.

In terms of frequency, the prevalent form of business is a **sole proprietorship** - a form in which there is no legal distinction between the individual and the business. These legal terms are familiar to most. However, several other categories of small business are in general usage. Terms include self-employed persons, substantial businesses, quasi businesses, business start-ups, micro businesses, knowledge-based firms, high growth firms, and home-based businesses.

Related Small Business Terms

Self-employed "are those who effectively control or share control of the company for which they work, regardless of the method of which they are paid (The Economist, 1992). Self-employed can mean a solo practitioner or a partner. Traditionally an "employee" does not have ownership interest.

The distinction between an "employee" and a "self-employed" person is sometimes a difficult one. Employment criteria impact Canada Pension Plan contributions and employment insurance benefits (see Table 2).

Table 2 Employee or Self-employed?

"At one extreme, if you work on a regular basis providing your services to one person or company for a fixed amount, whether computed hourly, weekly, monthly, or annually, you are an **employee**. At the other extreme, if you provide services to a series of different payors at essentially the same time, using your own expertise to determine the nature or degree of service and to prioritize the demands of your clients, you are probably operating a business.

... In trying to decide if a person offering services is an employee, two sets of tests are primarily used. The first is a four-fold test of (1) whether the worker was subject to complete control of the payor as to the use of time and the way in which services were performed, (2) whether the worker provided his own tools, (3) whether the worker has an opportunity for profit (in an accounting sense) from his services, and (4) whether the worker has a risk of loss from his enterprise."

The second series of tests is the "organization" test and may be summarized as "asking if the person offering services offers them in the context of a coherent business enterprise rather than merely putting himself (herself) in the service of a particular payor."

A **commission salesperson**, for example, is considered an employee" if the company whose products are being handled:

- trains, pays for a basic salary, has the right to discharge you;
- requires you to sell from their premises and follow established ours;
- restricts you to their own products and expects you to maintain a quota;
- direct you as to what territory to cover, what clients to approach and when and how to do so;
- supplies the automobile to use, pays your expenses or provides you with an allowance; or
- expects you to collect on a regular basis and make regular reports.

Employment status is also determined by the amount of control which a company or supplier has the right to exercise over the work of the individual. In terms of a **supplier salesperson** relationship, the presence of (all) three factors indicates independent status.

- the salesperson is not restricted to the supplier's product but is free to sell others whether or not they are competitive;
- the salesperson is not required to perform the services personally.
- The supplier is interested in the results of the work and not the methods; and,
- the salesperson is given no instructions about what territory to cover, what clients to approach, or when and how to carry out the service.

Source: *Preparing Your Income Tax Returns* by R. Hagg and M. Mallin.
Published by CCH Canadian Ltd., 1997

As a category it is well-known that self-employment is rapidly growing. The question then arises of when self-employment is initiated or what constitutes the "birth" of a business?¹

Start-up Businesses. It is not at all clear when to define the birth of a business. Stevenson (1989) suggests that a business is formed when an individual (in the case of the self-employed) or the legal entity has control of financing and marketing, activities which include product or service development and/or distribution.

Reynolds and Miller (1988) write about this problem as follows:

"When is the attempt to initiate an economic enterprise considered? When incorporation occurs? When business cards are printed? When loans are sought? When income is first received? When the first employee is hired? Each criterion has its own set of problems in defining a population of new firms."

Because of the difficulty inherent in identifying a start-up, Dennis and Dial (1996) differentiate a "**substantial**" business from "others". They define a "substantial" business entry as one with the following attributes:

- an owner who works 40 or more hours per week in the business;
- the primary location of the business is not in the home;
- the business has its own telephone number; and,
- the business employs people other than the owner.

Thus, it is not clear when a business is initiated. By the same token, as the firm grows and evolves, it is also unclear when a firm graduates from the status of a "start-up".

Quasi Firms. Star (1981) identifies quasi firms as:

"those with no paid employment, are short-lived, lack conventional business organization, and may represent part-time activities by owners who have other full-time employment."

These businesses, while also difficult to document, warrant consideration as such transitions include ventures going through birth and death.

¹ Revenue Canada qualifies a "**business**" as "any activity that you conduct for profit or with a reasonable expectation of profit. A business includes: a profession, a calling, a trade, a manufacture, an undertaking of any kind, and an adventure or concern in the nature of trade."

Micro and Mini Businesses. Definitional criteria of micro businesses vary by country. For example, Italy qualifies a **micro** enterprise as one of 51 to 100 employees (ESBO, 1989). Portugal employs an upper limit of less than 10 employees to define a **micro** enterprise. In Canada a "micro business" generally refers to businesses with less than 10 employees and/or revenue of less than \$1 million.²

In investigating the relationship between firm size and growth Orser and Hogarth-Scott (1993) categorize firms into four segments: mini, micro, very small, and small. Size segments are based on minimum criteria or thresholds. For example, a firm with less than 4 employees (or full-time equivalents) and sales of less than \$200,000 is deemed "mini". A "micro" business is defined as a firm with less than 10 but more than 4 employees (or full-time equivalents) and revenue of between \$200,000 and \$499,999. Mini and micro businesses account for the majority of firms in Canada. A **very small** business grosses sales of between \$500,000 and \$1 million with fewer than 20 employees (or full-time equivalents). **Medium** sized firms post revenues of between \$1 million to \$4 million with 20 to 100 employees. A "**large**" business thus employs more than 100 employees and has sales in excess of \$5M.

Table 3
Composite of Small and Medium Firms

Gross Revenue/ Employees	< \$200,000	\$200K-\$499K	\$500K-\$999K	\$1M-\$4.9M	> \$5M
0-4	MINI				
5-9		MICRO			
10-19			VERY SMALL		
20-99				MEDIUM	
100+					LARGE

Source: Adopted from Growth, Gender and Managerial Capacity. An Exploratory Study of Canadian Small and Medium Enterprises by Orser and Hogarth-Scott, 1993.

The small business literature also qualifies firms by geographic location, size and demographic characteristics of the owner/ operator such as: home-based, knowledge-based and high-growth operations.

Home-based Business refers to a business (self-employed, partnership or incorporated) undertaking paid and/or contracted activity in or from the home. This criteria assume that the home worker maintains ownership of the activity (e.g. is not a

² "Employment" as defined by Statistics Canada represents the average annual level of employment of the business. The measure is the average labour unit (ALU) which is calculated as (wages, salaries and benefits)/ (average annual earnings per employee). Average annual earnings per employee are estimated by industry and size of business from the Survey of Employment, Payrolls and Hours (SEPH).

paid "employee"). Businesses in and from the car qualify as a home-based operation if the transportation vehicle is owner and operated by the business owner.

Home-based Business "Owner"

Christensen (1987) presents a broad perspective on home-based business and includes all enterprises doing any paid work in the home, regardless of employment status. More inclusive definitions refer to only those who produce goods or services in or from their home (Kraut, 1988). Other studies have defined the category of a "home-based business" as the amount of time spend: that is, 8 hours or more per week working in the home (Horvath, 1986).^{3 4}

Knowledge-based Businesses. A set of SIC codes have been identified that are deemed to define "knowledge-based businesses". This set of firms account for less than 5% of Canadian firms. However, this definition is better viewed as one that identifies **technology-based** businesses. Most business owners would contend that their firms are knowledge-based. To be sure, the "knowledge-based" SIC codes omit many types of firms that service and prosper from the knowledge and expertise of their owners.

High Growth Businesses. Growth implies a business that is not in decline. Qualifying criteria for government programs targeted to "**high-growth**" varies. For example Ontario's Innovative Growth Firms Program requires firms to achieve + 30% growth (that is, a 30% increase in revenue) for 2 consecutive years. A similar program in the U.S. requires the firm to sustained this rate of growth over a five year period (Friedman, 1998).

Sectoral, demographic, and geographic distinctions: Policy makers and program developers are also interested in sectors or industries, demographic segments, or geographic regions. It is beyond the scope of this paper to describe all such programs. Farming and fishing are, however, noted. Definitional criteria used for government support varies depending on the ministry or agencies and nature of the policy and program.

³ Kraut (1989) suggests there are three categories of 'home worker'. The self-employed who operate a business in which a substantial amount of the work week is spent at or from the home. A **substituter** includes employees who spend part or all of their work day at home rather than at a traditional office. **Supplementers** are employees who bring work home to complete during evenings and weekends primarily to increase output. These three terms are often used without qualifying the source of remuneration i.e. paid employment or self-employment.

⁴ Orser and Foster (1992) employ three conceptual parameters to distinguish types of home work: level of commitment, employment status, and the extent of home activity. The level of commitment is defined by whether an activity is the primary or secondary occupation. Primary occupation is one in which the largest proportion of working hours is spent. A secondary occupation is one in which fewer hours are spent working than in the primary occupation.

Sectoral Definitions

Revenue Canada provides specific definitional guidelines on a select number of occupations including fishing and farming. Specific sector criteria is required due to various tax shelters, grants, subsidies, credits and rebates. For example a "**farmer**" is an individual who earns farm income from: soil tilling, livestock raising, horse maintenance, poultry raising, dairy farming, fur farming, tree farming, fruit growing, beekeeping, cultivating crops and Christmas trees, operating a wild-game reserve, chicken hatchery and running a feedlot. A "**fisherman (women)**" is considered "self-employed" of he/she owned or rented a fishing boat, was a captain of a fishing boat, or was a sharesman/woman who received a share of the catch.

WHAT IS AN ENTREPRENEUR?

The first theoretical use of the entrepreneurship concept appeared in the work of Cantillon (circa 1730 as cited by Long, 1983). His interpretation defined **entrepreneurship** as self-employment of any sort and every sort, as long as the person was not hired or working for a wage.

Gough (1969, as cited by Shapero and Sokol, 1982) points out that the 1897 Oxford English Dictionary defined "entrepreneur" as "the director or manager of a public musical institution: one who "gets up" entertainment, especially musical performance". Most modern scholars cite Joseph Schumpeter (circa 1910) who later qualified the term to include a value of innovation, carrying out new combinations of production called enterprise.

In a contemporary context "entrepreneur" is used to describe the owner/manager who is a risk taker, a leader, a decision maker, etc., with or without justification. A sizeable literature has attempted to isolate the characteristics of entrepreneurs. No consensus has been achieved in terms of identifying a consistent set of traits associated with entrepreneurial behaviour. Critics also contend that the elusive "entrepreneur" is nothing more than a figment of imagination and without value.

Shapero and Sokol (1982) argue that rather than focusing on the individual, one might consider the "entrepreneurial event" as it includes the one-time entrepreneur, part-time entrepreneur, as well as the repetitive entrepreneur without being tied to a particular kind of individual. Operationally, they denote an "**entrepreneurial event**" by:

- initiative-taking - an individual or group takes the initiative;
- consolidation of resources: an organization is formed or restructured to accomplish some objectives;
- management of the organization by those who took the initiative;
- relative autonomy: resources are disposed of and distributed with relative freedom; and,
- risk-taking: the organization's success or failure is shared by the initiators.

DEFINITIONAL CHALLENGES IN SMALL BUSINESS RESEARCH

Policy makers, researchers, and other small business stakeholders are challenged not only by ambiguous terminology and definitional inconsistencies but also by variability within data sets. This problem is not unique to the Canadian setting. Inconsistencies reflect a variety of factors.

1. *How small business data are sourced.*

Data collection is seldom an isolated activity. It is usually undertaken with an ulterior motive. For example, taxation-based data arise from the need to monitor and collect taxes. Business registration data are several (Federal, Provincial, etc.) are related to legal requirements. Typically, research and policy then attempt to use such "administrative" data basis as resources to guide policy. Insofar as the databases were not originally designed with this purpose, inconsistencies and incongruities abound.

Thus, qualification of a business often reflects the source of data. For example, the Small Business Profile Data distinguishes between non-incorporated businesses and incorporated firms or "corporations". This is because the data collection process uses information captured from samples of T1 forms for self-employed Canadians and samples of T2 forms for incorporated businesses.

2. *How the data is employed*

Government ministries and other stakeholders require and employ different definitional parameters. These vary, depending on the nature of the program or service. For example the Small Business Loans Act implicitly defines "small business" as those with annual gross revenues of less than \$5 million. Industry Canada requires information on the number, types, and success rates of businesses for policy and programming. Other government units such as Revenue Canada are concerned primarily with revenue values for tax enforcement purposes. Government agencies such as Canada Mortgage and Housing Corporation, human Resource Development Canada and other social service ministries are concerned with the social/psychological consequences of working such as the number of hours worked and health standards. Various definitions, criteria, and measurement "units" result.

3. *Industry sector differences.*

A \$5 million business in the Canadian craft industry is considered "medium" to "large". A similarly sized operation in the mining sector might be too small to be viable. Certain data files attempt to account for geographic or industry norms in accounting for a small business. Most approaches do not make this distinction. For example, the Small Business Profiles database defines a small business as one with gross operating revenues of \$25,000 to \$5 million (ESBO, 1998). The Business Register Division (BRD) of Statistics Canada, however, further divides businesses into "thresholds" by province and by industry. This allows for a comparison of large and small operations by sector.

4. *Assumptions made by researchers and the popular press.*

Such assumptions can reflect the maturity and legal status of the firm. For example 'home-based' business has also been referred to in the literature as the "underground economy", the cottage trade, grey market, the invisible sector, pre-traders, little businesses and micro-enterprises.

5. *Introduction of new phrases.*

Terms such as "business incubators" and "SOHOs" are recent additions to the small business vocabulary. New technologies are transforming the traditional concept of work and our notions of organizational membership. Terms such as "tele-work", and "tele-commuting" reflect the ways in which technology is employed. Other terms such as "intrapreneur" reflect management strategy and/or the evolving employee/employer/work relationship.

6. *Multiple interpretation of terms.*

Concepts such as "entrepreneur", "enterprise" and "venture" have also evolved through time and are often interpreted differently. For example, entrepreneurship ("entreprendre", to do something) has been used since the 12th century (Long, 1983). During the fifteenth century, it evolved into a noun.

Furthermore, even the basic concept of a "business" can vary. Terms such as establishment, company, and enterprise might refer to identical or potentially different types of business units. For example, Reynolds and Miller (1987) make a clear distinction between an "establishment" and an "enterprise". An establishment is defined as a single physical location where business is conducted or where services or industrial operations are performed (e.g. a drug store, manufacturing plant or warehouse). An establishment or firm is a legal entity consisting of one or more

establishments. They caution researchers that differences can be substantial. A major manufacturing enterprise (firm) controls hundreds of establishments.⁵

7. *The obscure nature of business start-up and termination.*

Debate continues on the definitional criteria of a “new” business. A business “failure” or “termination” can be equally ambiguous. When broadly defined the concept of failure includes bankruptcies, insolvency, liquidation, involuntary closures, etc.

8. *Disciplinary bias and academic assumptions in defining the business unit.*

Historically the study of (new) firms has been the focus of industrial economists. However, certain aspects of small business research (such as the study of self-employment) tend to be the province of labour economists (Riding, 1994). Increasingly the study of small business is the focus of cross-disciplinary research. As a result the disciplinary nature of the researcher results in alternative definitions and explanations. For example, industrial economists posit that entries depend on profit and concentration levels, barriers to entry and growth rates. Psychologists may view firm formation through attitudinal, and psychological attributes while management scholars tend to focus on multiple firm attributes.

9. *Innovative forms of venture.*

Lastly, new forms of venture creation result in new definitions to describe a small business. For example, “spin-offs”, “phantom business”, “profit-centers”, “constellations” and “strategic alliances” are several of the many structures a business can assume. Moreover, such relationships are not static.

Hence, while some may think of “small business” as a homogenous group, misperceptions and inaccuracies can lead to models and policies that have limited effectiveness.

The following section provides readers with a cursory overview of the public and internal government databases pertaining to the small business marketplace. This information is intended to provide committee members with a starting point on the type of information contained in data files. Additional definitional criteria pertaining to the Small Business Profiles is found in Appendix B.

⁵ Statistics Canada Longitudinal Employment Analysis Program (LEAP) file shares this aspect. The LEAP data base defines employer units according to groupings of common T4 issuers. While common T4 issuers are likely to be businesses, it is also likely that some of the establishments defined by the LEAP database are not necessarily autonomous businesses. Nor does the LEAP file comprise non-employer businesses.

A PRELIMINARY MAP OF TERMS AND DATABASES

Types of Information

Each of the selected databases provides specialized data about the socio-demographic profile and business demographics of Canadians. The age of the database, source of records, survey information and costs of retrieving data vary.

In cases where data do not already exist, Statistics Canada is able to conduct customized surveys to meet client needs. For example, the **Self-employed Unincorporated Database** (SED) is a new database linking the **Small Business Profiles Database** (SBP) with the **Longitudinal Administrative Database** (LAD). The database provides Industry Canada with longitudinal data based on T1 (unincorporated businesses) tax information and the cross sectional, detailed use of the Small Business Profiles. It will allow computation on basic business demographics including survival rates, financial and personal data and histories of micro-businesses in absolute dollars and as a proportion of total family income). The LAD/SBP intersection data will also allow mapping of the micro-business sector, estimating the proportions of quasi-businesses, home-based businesses etc. Knowledge of the relative quantities of such firms, broken down by geographic region, industry sector, and gender of owner can provide further assistance to help guide policy targeting.

Table 4
Statistics Canada Business Databases
(Draft only)

Criteria	Small Business Profiles (SBP)	Employment Dynamics	Small Business Micro Data	Self-employment Unincorporated (Linking SBP and LAD)
Types of Information:				
Type of Business - T1	✓	✓	✓	✓
Type of Business - T2	✓	✓	✓	✓
Selected Expenses (T1, T2)	✓		✓	✓
Employment (ALU)	✓	T4 only	✓	✓
Financial ratios	✓		✓	✓
Balance sheet (T2 only)	✓			✓
Profitable/non-profitable businesses	T1 + T2 only		✓	T1 + T2 only

Small Business Profiles (SBP) provides detailed financial and employment information on small businesses, by industry, provinces and the territories (1985-1995). Data provide performance benchmarks for the financial planning of start-up and established small and medium sized businesses. For the purposes of this data base a "small business" was defined as one with gross operating revenue between \$25,000 and \$5,000,000.

T1 refers to a sample of Revenue Canada unincorporated businesses; **T2** refers to incorporated businesses. **T4s** refers to the record of employment earnings for tax purposes (a T4 slip).

Employment ALU refers to an average labour unit calculated as total annual payroll/ average annual earnings per employee. The ALU represents an industry's annual average level of employment which is similar, but not identical to number of jobs and number of people. ALU is obtained from the LEAP (Longitudinal Employment Analysis Program) database. Provincial level estimates of average annual earnings per employee are obtained from SEPH (Survey of Employment, Payrolls and Hours, Statistics Canada). Rather than at the aggregate level analysis the Small Business Micro database (SMP) provides *individual* records (micro data).

The source data for the **Employment Dynamics Database** is Revenue Canada **T4 records (record of employment earnings)** and is based on all businesses with paid employees. Using administrative tax files it provides information on employment and payroll statistics (1985 -).

The **Self-employment Unincorporated** database links the SBP and the LAD (1982-1993) for analysis purposes.

Table 4 con't
Statistics Canada Business and Employment Databases
DRAFT ONLY

Criteria	Business Registry (BR)	Longitudinal Administrative Database (LAD)	Longitudinal Employment Analysis (LEAP)
Types of Information:			
Personal Tax Information		✓	
Unincorporated (T1) personal income from all sources including self- employment, professional, benefits, etc.		✓ (T1 only)	
Socio-demographic data (age, family composition, etc.)		✓	
Company level information (T4 only)	✓		✓
Number of employees	✓		
Gross business income	✓		

The **Business Registry** (BR) includes Incorporated /Incorporated, non-profit organizations, religious organizations, government departments and institutions for all industrial sectors. The number of employees and gross business income is based on the value of employer remittances to Taxation Authorities. Industrial code is assigned by Statistics Canada provided by the firm when registering with the Taxation Authorities.

The **Longitudinal Administrative Database** (LAD) is a longitudinal sample of Canadians constructed from information provided by Revenue Canada on personal tax returns (T1 forms). LAD contains income, demographic and other taxation data for individuals, families and parent/spouse/children for 1982 to 1994.

The **Longitudinal Employment Analysis** (LEAP) is based on Revenue Canada payroll deduction accounts (PD accounts). The self-employed that do not draw a salary are not included in this universe, and thus are not counted in LEAP. Businesses comprised solely of individuals or partnerships who do not draw a salary are also excluded from LEAP.

Table 4 con't
Small Business Employment Databases
and Statistics Canada Databases
DRAFT ONLY

Criteria	Survey of Employment, Payrolls and Hours (SEPH)	Survey of Labour and income Dynamics (SLID)
Type of information: Longitudinal Household Survey Flow data on employment and unemployment by occupation Job quality (wages, mobility, earnings) Family economic mobility Annual head count by industry	 ✓	 ✓ ✓ ✓ ✓

SEHP provides a monthly estimate of payrolls and hours at the industry codes level. A company is assigned the industry code which is dominant among the employment in the establishment (i.e. an employment weighted dominance determined). This measure is not a full time equivalent count, and does not distinguish between part-time and full-time work. The "annual head count" measure is conceptually identical the LEAP's ALU and the Labour Force Survey. In comparison calculations are not identical where SEPH is low, LFS mid and LFS high.

SLID (1993-) is a panel based household survey capturing information on changes in the economic well-being of individuals and families over time. Longitudinal (or cross sectional) data available on individuals, employer or "spells" (of unemployment for example). Panels selected from the Labour Force Survey (LFS). Flow data of person or jobs are possible by industry, occupation, or workers characteristics (e.g. why people withdraw from the labour market and what precedes a transition into self-employment).

IMPLICATIONS FOR SMALL BUSINESS RESEARCH

How Can Researchers and Policy Makers Best Define Small Businesses?

Researchers and policy advisors have argued that small business is best served by not imposing strict definitional criteria (Donnelly, 1998; Friedman, 1998). Kraut (1988) for example, suggests that collecting continuous variables that index certain aspects of business ownership should be employed allowing individual researchers and policy analysts to impose their own classifications for their own purposes is most appropriate.

This approach would allow policy makers to develop a more inclusive profile of small business by capturing the nuances of the business owners. Descriptive information could then be mapped permitting subsequent stratification and analysis i.e. allowing researchers to develop their own interpretations of the data. Kraut's suggestions, however, also pose methodological problems in the development of cost effective data and research.

A better approach to the development of a small business nomenclature is through the use of multi-definitional information. This approach would favour specific "types" of small business categories. Such a multi-definitional approach is consistent with context-specific (problem-orientated) research.

As such, various databases might be merged to provide a more comprehensive profile of the small business marketplace. This is the case of the Self-employed Unincorporated Database (SUD) which links the Small Business Profile (SBP) and the Longitudinal Administrative Database (LAD).

This brief review on definitions of small business and issues for public policy closes with two recommendations:

1. Caution when interpreting and comparing international and cross file data.

National, regional and constituency perspectives influence aggregate labour data. This makes international and comparative studies difficult. Failure to clarify terms of reference for sample groups will result in reporting inconsistencies and inaccuracies.

For example, the OECD (1989) defines "self-employment" as "those individuals who effectively control or share control of the company for which they work, regardless of the method by which they are paid". During this same period Employment and Immigration Canada (1993) considered an individual to be self-employed "if self-employed at any job", a "paid" workers if paid work at all jobs. A comparison of the two sample sources would be inappropriate.

Furthermore, clarification of terminology in consultation with Statistics Canada is

recommended. One term may be defined in different ways within two data files. Similarly, different terms may mean the same thing across data files Hamilton (1998).

2. Need to Articulate Clearly Policy Objectives.

Policy issues impact how the data is interpreted. Public policy and program objectives are best articulated prior to designing the research and data files.

For example, the committee may be interested in the cost effectiveness and long-term benefits of small business training schemes. How program effectiveness is calculated will reflect departmental policy. For example, cost effectiveness and displacement may or may not include in the assessment. "Dead-weight", can be defined as a measure of the number of scheme or program participants who would have established their business whether or not the scheme provided assistance. "Displacement" is defined as the effect of reducing or replacing competitive businesses who do not receive assistance. If the objective of the program is to create "new" jobs then displacement and deadweight are important factors in determining cost effectiveness. If the objective of the program is to increase Canadians' understanding of small business ownership then these variables would not be weighted in the program assessment calculations.

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Appendix A

A Compendium of Country Specific Definitions of an SME (ESBO, 1998)

A COMPENDIUM OF COUNTRY-SPECIFIC DEFINITIONS OF AN SME

Sources of Information	Country	Country official definition	Criteria	Other definitions: (A): OECD globalization & SMEs study; (B): OECD/EUROSTAT database (C): Others
Globalization and Small and Medium Enterprises (SMEs), Vol. 1, OECD, Paris, 1997.	Australia	Manufacturing: Small enterprises: < 100 employees; Services: < 20 employees.	Employment.	(A): Small enterprises: < 20 employees. Medium enterprises: < 100 employees. (B): Services: < 20 employees, Manufacturing: < 100 employees. Agriculture: total assets value between A\$ 20,000 and 400,000.
The same as above.	Belgium	Annual staff average of 50 employees. Annual turnover (Vat excluded) ECU - 4.2 million. Balance sheet total of ECU 2.1 million.	Employment. Assets.	(A): < 500 employees. (B): Total balance: ECU 1.5 million. Total assets: ECU 3.1 million. < 50 employees.

The same as above.	Korea	<i>Manufacturing:</i> < 300 employees. <i>Services:</i> < 20 employees.	Employment.	(A): < 300 employees.
The same as above.	Chinese Taipei	<i>Manufacturing:</i> < NTS 40 paid-up capital. < Total assets of NTS 120 million. <i>Business, transport, other services:</i> Sales of < NTS 40 million.	Paid-up capital, assets and sales.	(A): <i>Small enterprises:</i> < 10 employees. <i>Medium enterprises:</i> < 100 employees.
The same as above.	Indonesia	< 100 employees	Employment.	(A): < 100 employees.
The same as above.	Thailand	<i>Labour intensive sectors:</i> < 200 employees. <i>Capital intensive sectors:</i> < 100 employees.	Employment. Capital.	(A): <i>Small Enterprises:</i> < 10 employees. <i>Medium enterprises:</i> < 100 employees.
The same as above.	Malaysia	Varies, Shareholders Funds; < RM 2.5 million and < 75 employees.	Shareholders Funds. Employment.	(A): < 75 employees.
The same as above.	Singapore	<i>Manufacturing:</i> < S\$ 12 million fixed assets. <i>Services:</i> < 100 employees.	Fixed assets. Employment.	(A): < 100 employees.
The same as above.	Vietnam	No fixed definition, generally < 200 employees.	Employment.	(A): < 200 employees.

The same as above.	Japan	< 300 employees (or, < ¥ 100 million in asset capitalization) except in wholesaling (< 50 employees or < ¥ 30 million in capitalization) or retailing services (< 50 employees or < ¥ 10 million in capitalization).	Employment.	(A): < 300 direct employments, < 300 indirect employments. (B): <i>Industry, mining, transport</i> : total investment < ¥ 100 million; < 300 employees. <i>Services</i> : total investment < ¥ 10 million; < 50 employees. <i>Wholesaling</i> : total investment < ¥ 30 million; < 100 employees.
The same as above.	The Netherlands	All private enterprises excluding agriculture and fishery, employing < 100 people. <i>Small enterprises</i> : < 10 employees. <i>Medium enterprises</i> : 10 - 100 employees.	Employment.	(A): <i>Small enterprises</i> : 0 - 9 employees. <i>Medium enterprises</i> : 10 - 100 employees. (B): <i>Small enterprises</i> : 0 - 9 employees. <i>Medium enterprises</i> : 10 - 100 employees.
The same as above.	Portugal	< 500 employees. < Esc 2,400 million in sales (value for 1993) and is not controlled (more than 50%) by any company (nor does it hold over 50% of any other company).	Employment. Sales.	(A): Micro enterprises: < 10 employees. <i>Small enterprises</i> : 10 - 99 employees. <i>Medium enterprises</i> : 100 - 499 employees. (B): <i>Economic activity</i> : Manufacturing, retailing, wholesaling: < 500 employees. <i>Total assets</i> : < Esc 1.7 million.

The same as above.	Finland	No fixed definition (statistics are about production units); statistics include also small companies owned by large companies.		(A): <i>Small enterprises</i> : < 100 employees. <i>Medium enterprises</i> : < 500 employees. (B): No fixed definition.
The same as above.	France	10 - 499 employees.	Employment.	(A): 10 - 499 employees. (B): 10 - 499 employees.
The same as above.	Germany	< 500 employees (enterprises employing fewer than 20 persons are not included in industry statistics).	Employment.	(A): < 500 employees. (B): No fixed definition.
The same as above.	Greece	<i>Small enterprises</i> : 0 - 49 employees. <i>Medium enterprises</i> : 50 - 500 employees.	Employment.	(A): <i>Small enterprises</i> : 0 - 49 employees. <i>Medium enterprises</i> : 50 - 500 employees (B) No fixed definition.
The same as above.	Ireland	< 500 employees.	Employment.	(A): < 500 employees. (B): < 500 employees.
The same as above.	Italy	< 200 employees.	Employment.	(A): <i>Micro enterprises</i> : 51 - 100 employees. <i>Small enterprises</i> : 101 - 300 employees. <i>Medium enterprises</i> : 301 - 500 enterprises. (B): <i>Small enterprises</i> : < 19 employees. <i>Medium enterprises</i> : 20 - 500 employees.

<p>9. Leisure and Personal Services, Statistics Canada, Cat.# 63 - 233 - XPB, Annual.</p> <p>10. Retail Chain and Department Stores, Statistics Canada, Cat.# 63-210-XPB, Annual.</p>	Canada	<p>(9): Leisure and Personal Services, firm size by revenue size: < \$2 M, \$2 M - \$5 M, and >\$5 M.</p> <p>(10a): Supermarket and Grocery chains, size by number of stores: 4 - 9 stores, 10 - 49 stores, 50 - 99 stores, 100 - 249 stores, and 250 stores & over.</p> <p>(10b): Supermarket and grocery Chains, size by annual sales volume: < \$20 M, \$20 M - \$39.9 M, \$40 M - \$199.9 M, \$200 M - \$699 M, and \$700 M & over.</p> <p>(10c): Supermarket and Grocery Chain Stores, by annual sales volume: < \$400 K, \$400 K - \$999.9 K, \$1M - \$4.9M, \$5 M - \$7.9 M, \$8 M - \$11.9 M, and \$12 M & over.</p>	<p>(9): Revenues.</p> <p>(10a): Number of stores.</p> <p>(10b): Sales.</p> <p>(10c):Sales.</p>	
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7. Vending Machine Operators, Statistics Canada, Cat. # 63 - 213-XPB, Annual.	Canada	(7): Vending Machine Operators, firm size by sales size: < \$250 K, \$250 K - \$499.9 K, \$500 K - \$999.9 K, \$1M - \$1.9 M, \$2 M - \$3.9 M, and \$4 M & over.	(7): Sales.	
8. Traveller Accommodation Statistics, Statistics Canada, Cat. # 63 - 204-XPB.		(8): Motels by room size group: < 50 rooms, 50 - 99 rooms, 100 rooms and more.	(8): Room size group.	

.11. ESBO (Industry Canada) Trade Data.	Canada	(11): Firm Size by share of export participation (share of the value of goods and services exported): -- small: < \$500 K, medium: \$500 K - \$5 M, and large: over \$5 M. (12a): Industrial R&D Expenditures, firm size by performing company revenue size: <\$1 M, \$1 M - \$9.9 M, \$10 M - \$49.9 M, \$50 M - \$99.9 M, \$100 M - \$399.9 M, and > \$399.9 M. (12b) Industrial R&D Expenditures, firm size by employment size: 1-49, 50 - 99, 100 - 199, 200 - 499, 500 - 999, 1,000 - 1,999, 2,000 - 4,999, and > 4,999.	(11): Exports. (12a): Revenues. (12b): Employment.
12. Industrial Research and Development, Statistics Canada, Cat. # 88-202-XPB.			
Globalization and Small and Medium Enterprises (SMEs), Vol. 1, OECD, Paris, 1997.	Denmark	< 500 employees manufacturing only; production units with more than 5 employees.	Employment. (A): < 500 employees. (B): No fixed definition.

2. Small Business Profiles, Statistics Canada; ESBO (Industry Canada) data base.	Canada	(2): Revenues, selected expense items, assets, liabilities, and financial ratios of small firms (with revenues between \$25K - \$5M) for four-digit industries by revenue size broken out into quartiles (which are constructed by ranking all sampled firms according to their revenue value and then breaking these up into four groups with equal number of businesses): bottom quartile, lower middle quartile, upper middle quartile, & top quartile. These data are also calculated by: lower half (firms whose gross operating revenues are below the median which is the middle value or the arithmetic mean of the two middle values of a set of number arranged in order of magnitude) & upper half.	(2): Revenues.	
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<p>5. Architectural Engineering and Scientific Services in Canada, Statistics Canada, Cat.# 63-234-XPB, Annual.</p>	<p>Canada</p>	<p>(5a): Summary statistics for Architectural establishments, by revenue size group: < \$50 K, \$50 K - \$249.9 K, \$250 K - \$499.9 K, \$500 K - \$999.9 K, \$1M - \$1.9M, and \$2 M & over.</p> <p>(5b): Summary statistics for consulting engineers, by revenue size: <\$250 K, \$250K - \$499.9 K, \$500 K - \$1.9 M, \$2 M - \$4.9 M, \$5 M - \$9.9 M, and \$10 M & over.</p>	<p>(5a): Revenues.</p> <p>(5b): Revenues.</p>	
<p>6. Software Development and Computer Service Industry, Statistics Canada, Cat. # 63 - 222-XPB, Annual.</p>		<p>(6): The same as above.</p>	<p>(6): Revenues.</p>	

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The same as above.	United States	<i>Very small enterprises: < 20 employees.</i> <i>Small enterprises: 20 - 99 employees.</i> <i>Medium enterprises: 100 - 499 employees.</i>	Employment.	(A): < 500 employees. (B): <i>Micro enterprises: < 20 employees.</i> <i>Small enterprises: 20 - 99 employees.</i> <i>Medium enterprises: 100 - 499 employees.</i>
Non- OECD countries				
J.H. Sarder, D. Ghose, and P. Rosa, <i>The Importance of support services to small firms</i> , Journal of Small Business Management , Vol. 35, No. 2., 1997.	Bangladesh		Employment.	(C): < 50 employees.
Globalization and Small and Medium Enterprises (SMEs) , Vol. 1, OECD, Paris, 1997.	The republic of China	Varies with industries, usually < 100 employees.	Employment.	(A): <i>Handicraft industries: < 20 employees</i> <i>Heavy Industries: < 1,000 employees.</i>

The same as above.	Spain	<i>Small enterprises:</i> < 200 employees. <i>Medium enterprises:</i> < 500 employees.	Employment.	(A): <i>Small enterprises:</i> < 200 employees. <i>Medium enterprises:</i> < 500 employees. (B): <i>Total balance:</i> ECU 1.7 million. <i>Total net assets:</i> ECU 3.6 million. < 50 employees.
The same as above.	Sweden	Autonomous firms with < 200 employees.	Employment.	(A): Autonomous firms with < 200 employees. (B): < 200 employees.
The same as above.	Switzerland	No fixed definition.		(A): <i>Small Enterprises:</i> < 50 employees. <i>Medium enterprises:</i> < 500 employees. (B): < 500 employees.
The same as above.	United Kingdom	No fixed definition.		(A): <i>Micro enterprises:</i> < 10 employees. <i>Small enterprises:</i> 10 - 49 employees. <i>Medium enterprises:</i> 49 - 499 employees. (B): No fixed definition.

The same as above.	Philippines	< 200 employees, revenue: < P 40 million.	Assets. Employment.	
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1. Employment Dynamics and Business Size, Statistics Canada; ESBO (Industry Canada) small business data base.	Canada	<p>No fixed definition. Varies with activities:</p> <p>(1): Number of businesses, employment and payroll data for three-digit industries by firm size is calculated by the number of ALU's (average labour units employed by a firm. It can be taken as equivalent to the number of employees per firm) in a business: < 5 ALU's, 5 - 19.9 ALU's, 20 - 49.9 ALU's, 50 - 99.9 ALU's, 100 - 499.9 ALU's, and 500 ALU's plus.</p>	(1): ALU's.	<p>(A): <i>Manufacturing</i>: < 500 employees.</p> <p><i>Services</i>: < 50 employees.</p> <p>(B): < 20 employees.</p> <p>Gross annual revenue < C\$ 2 million.</p>
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Appendix B

Definitional Criteria for the Small Business Profile Database (Statistics Canada, 1995)

SMALL BUSINESS PROFILES, 1995

1. General Information

1.1 Introduction

The Small Business Profiles provide detailed financial and employment data on small businesses by industry for Canada, the provinces and territories. The Profiles have been produced every two years since 1985, with 1995 being the most current reference year available. The data provide performance benchmarks for the financial planning of start-up and established small and medium sized businesses.

The Profiles are one of two products produced by Statistics Canada's Small Business and Special Surveys Division as part of the Small Business Data Program (SBDP). The other product is the Employment Dynamics. The following federal and provincial departments fund the SBDP:

- Industry Canada
- Business Development Bank of Canada
- Human Resources Development Canada
- Atlantic Canada Opportunities Agency
- Federal Office of Regional Development (Québec)
- Western Economic Diversification
- Newfoundland Statistics Agency
- Prince Edward Island Economic Development and Tourism
- Nova Scotia Department of Finance
- New Brunswick Economic Development and Tourism
- Ministère de l'Industrie, du Commerce, de la Science et de la Technologie, Québec
- Manitoba Industry, Trade and Tourism
- Saskatchewan Economic Development
- Alberta Economic Development
- British Columbia Ministry of Finance and Corporate Relations
- Yukon Bureau of Statistics
- Government of the Northwest Territories

The Small Business and Special Surveys Division (SBSS) provides specialized data about and for small business. The Division makes extensive use of administrative records and existing survey information to produce detailed and cost efficient data for clients with no additional response burden on businesses. As well, in cases where data do not already exist, SBSS is able to conduct customized surveys to meet client needs. For more information, contact:

Small Business and Special Surveys Division
Statistics Canada
10 C-8 Jean Talon Building
Ottawa, Canada
K1A 0T6

Telephone: (613) 951-0822
Fax: (613) 951-1572

1.2 Format of the Profiles

Each Profile has three pages, one for each of the business types: unincorporated (T1), incorporated (T2) and all (T1+T2) businesses. Businesses are classified as T1 or T2 based on the type of tax return filed with Revenue Canada. Since the variables available from the T1 and T2 tax returns are different, the type of information available on each page of the Profiles is also different.

The Profiles include five types of information: selected expense items, employment data, financial ratios, a balance sheet and profitable vs. non-profitable businesses. A different mix of these types of information appears on each page of the Profiles, as follows.

Type of information	Unincorporated (T1)	Incorporated (T2)	All (T1+T2)
Selected expenses	Yes	Yes	Yes
Employment	Yes	Yes	Yes
Financial ratios	Yes, but 2 only	Yes, all	Yes, but 2 only
Balance sheet	No	Yes	No
Profitable vs. non-profitable businesses	No	No	Yes

The selected expense items include gross operating revenue, total expenses, net profit/loss and 21 individual expense items. These data are available in two formats - as a percent of gross operating revenue or as thousands of dollars. The employment data show an annual estimate of employment in average labour units (ALU). The financial ratios are generated from the revenue, expense and balance sheet data. The full set of 12 ratios is available only for the T2 businesses, since T1 businesses are not required to submit a balance sheet to Revenue Canada. However, a subset of two ratios is available for both the T1 and T1+T2 breakdowns. The balance sheet includes total assets, total liabilities, total equity and 11 individual asset and liability items. It is only available for the T2 businesses. The profitable vs. non-profitable business comparison is only made at the all businesses (T1+T2) level. Businesses are first grouped as profitable (net profit is zero or positive) or non-profitable. The percent of businesses that are profitable, along with gross operating revenue, total expenses and net profit/loss for both groups, can then be shown. Comparable data from two years earlier are provided in order to establish whether there have been any significant shifts in the profitability of a particular industry within that time span.

For the Profiles, gross operating revenue between \$25,000 and \$5,000,000 was chosen as the definition of small business. Within this range, businesses at the low revenue end can display very different financial characteristics than businesses at the high revenue end. For this reason, each Profile contains financial data for the whole revenue range as well as various groupings within that range. These various groupings make up the columns on each page of the Profiles.

The sample of businesses for each Profile is divided into three different groupings. The first grouping treats the sample of businesses as one group, the whole industry. The second grouping divides the sample into two parts, a lower half and an upper half. The third grouping divides the

sample into four parts, the quartiles. These groupings divide the industry into segments so that comparisons between businesses at different gross operating revenue levels can be made. The revenue boundary for each grouping is indicated by the low and high values appearing at the top of each column. A technical description of how the business groupings are determined can be found in the "Sources, Methods and Data Quality" section of this Guide. The last column shows the percentage of businesses in the sample that reported each expense item on their tax form.

1.3 Data for 1995

The Profiles are available for the provinces, territories, Atlantic Canada, the Prairies and Canada. Industries are defined using the 1980 Standard Industrial Classification (SIC) - Statistics Canada's standardized coding system for grouping businesses engaged in similar types of activity into non-overlapping industry categories. Profiles are available at all levels of industrial aggregation. The most aggregate level is the 1-digit level (Divisions), followed by the 2-digit level (Major Groups), the 3-digit level (Groups) and the 4-digit level (Classes). A more complete description of the SIC is available in Statistics Canada Catalogue No. 12-501E.

The data in the Profiles are for an average small business with revenue of \$25,000 to \$5,000,000 operating in a particular industry and area. These averages are calculated from a sample of businesses weighted to represent the entire small business population. The sample size for each area and industry, rounded to the nearest 10, is provided at the top of the page.

The data used to generate the Profiles come from a sample of Revenue Canada tax returns for unincorporated and incorporated businesses operating in Canada. The data are transcribed into electronic format from the financial statements that businesses attach to their income tax forms. Unincorporated businesses, which usually include the self-employed, provide an income/expense statement and other supporting documents. Incorporated businesses provide an income/expense statement, a balance sheet statement and supporting Revenue Canada schedules. Statistics Canada's processing schedule is dependent on Revenue Canada's processing schedule. Currently, the Profiles can be released no earlier than 22 months after the end of the reference tax year.

By using administrative tax records as a source of data, Statistics Canada is able to produce detailed financial data without additional response burden on business. However, there are some conceptual and quality limitations to using this administrative data. One such limitation is the purpose for which the data are being created. Businesses file tax forms for the purpose of being assessed income tax. As such, there is financial incentive for filers to legally minimize their tax bills. Using tax rules that allow such practices as deferring income or expenses to a year later or earlier than actually realized can cause some statistical distortion in the tax reporting of actual business operations in a given year. As well, since Revenue Canada requires businesses to attach a detailed income and expense statement (and a balance sheet statement for incorporated businesses) without specifying the exact format of this statement, there is no standard of income and expense reporting among businesses. For example, some businesses will report rent expenses separately from utilities expenses, while others will report one figure for rent and utilities combined. Some businesses use accountants to prepare tax returns while others are prepared by owner/operators with little or no knowledge of standard accounting practices. The

lack of reporting standards, as well as different accounting practices, can lead to significant data variability. Another limitation of administrative data is that Statistics Canada cannot contact a business for the purpose of clarifying figures reported on a tax form, which limits the ability to ensure the accuracy and consistency of the data.

1.4 Historical Data

The Profiles have been produced every second year since 1985. Over time, the definition of small business has changed, as has the methodology used to compile the data. For these reasons, and because the Profiles database is not designed to be longitudinal, Statistics Canada does not recommend comparisons of the Profiles over time.

Profiles from 1991 to 1995 can be purchased through your local Statistics Canada Regional Office. The location of the offices (NCR is the National Capital Region) and their local and toll-free telephone numbers are listed below.

Office (Region)	Local	Toll-free
Halifax (Atlantic Canada)	426-5331	1-800-263-1136
Montreal (Québec except NCR)	283-5725	1-800-263-1136
Ottawa (NCR)	951-8116	1-800-263-1136
Toronto (Ontario except NCR)	973-6586	1-800-263-1136
Winnipeg (Manitoba)	983-4020	1-800-263-1136
Regina (Saskatchewan)	780-5405	1-800-263-1136
Calgary (Southern Alberta)	292-6717	1-800-263-1136
Edmonton (Northern Alberta and NWT)	495-3027	1-800-263-1136
Vancouver (BC and Yukon)	666-3691	1-800-263-1136

Profiles from 1985 to 1989 can be purchased from Small Business and Special Surveys Division. The telephone number is (613) 951-0822.

2. Definitions

This section of the User Guide contains definitions of various terms appearing in the Profiles.

2.1 Selected Expense Items

Gross operating revenue includes revenue from such activities as the sale of products and services, commissions, rent, interest, dividends, premiums and other sources of revenue. It excludes capital gains or losses and extraordinary gains or losses. This item is calculated from eight transcribed variables: product sales + service sales + commissions + real estate rent + other rent + interest + dividends received + other revenue.

Cost of goods sold represents direct costs incurred by businesses from the process of selling goods. This item is calculated as purchases and materials + opening inventory - closing

inventory. This item can have a negative value if closing inventory is larger than purchases and materials plus opening inventory.

Purchases and materials includes purchases used to produce revenue for product sales, costs incurred by businesses that hire outside firms to perform special trade tasks, land costs or land purchased for resale and other recorded direct costs. It excludes broomstick costs, installation costs, logging expenses, the purchase of tires and surveying and timber cruising costs that are a result of sub-contracts. Purchases and materials are calculated from several transcribed variables: purchases + sub-contracts + purchases and sub-contracts + land + other direct costs.

Closing and opening inventory includes tangible property held for sale in the ordinary course of business, in the process of production for such sale, or to be consumed in the production of goods and services for sale, excluding articles held for rental purposes reported by the company as inventory. Both closing and opening inventory are transcribed directly from tax forms.

Wages, salaries and benefits are calculated as direct wages, salaries and benefits + indirect wages, salaries and benefits.

Direct wages, salaries and benefits includes those salaries, wages, commissions and remuneration paid to employees, officers and directors that are shown in the cost of sales. This item is transcribed directly from tax forms.

Indirect wages, salaries and benefits includes remuneration paid to the employees of the business not shown in the cost of sales. If the business does not give a breakdown of direct and indirect, wages are transcribed into indirect wages. This item is calculated as other salaries and wages + employee benefits.

Occupancy expenses are calculated as depreciation + repairs and maintenance + fuel and oil + utilities + rent.

Depreciation includes both direct and indirect depreciation. Depreciation charges consist of capital cost allowance, depletion, amortization of leasehold improvements and depreciation on computer software. Items such as amortization of goodwill, trademark and franchise costs, and terminal loss are excluded. This item is calculated from two transcribed variables: direct depreciation + indirect depreciation.

Repairs and maintenance include costs related to new or replacement parts, or the restoration of plant and machinery to keep properties in efficient working condition. This item is transcribed directly from tax forms.

Fuel and oil includes fuel and oil used only in motor vehicles. This item is transcribed directly from tax forms.

Utilities includes expenses for heat, light, water and telecommunication expenses for the location in which the business operates, as well as the electricity or fuel used to power its factory or plant.

This item is transcribed directly from tax forms.

Rent includes all rental expenditures paid to other companies or agencies for the use of land, offices, building, machinery and equipment, but excludes capital leases. This item is transcribed directly from tax forms.

Financial expenses are calculated as interest and bank charges + professional fees.

Interest and bank charges include all interest expense and discounts paid by the business, such as real estate mortgages, chattel mortgages, mortgage bonds, advances and demand loans, bank interest, etc. It is calculated from two transcribed variables: mortgage interest + other interest.

Professional fees include all expenditures on external professional advice or services, such as accounting fees, legal fees and incorporation fees, with the exception of management fees. This item is transcribed directly from tax forms.

General expenses are calculated as advertising + delivery expenses + insurance.

Advertising covers all advertising expenses, such as promotions, signs, window dressings, catalogues, etc. This item is transcribed directly from tax forms.

Delivery expenses include expenses for delivery, shipping, courier and distribution services used by businesses, except for those in the transportation industry, which are contained in "purchases and materials." This item is transcribed directly from tax forms.

Insurance includes all types of insurance such as bonding, car insurance, fire and liability insurance, premium expenses, etc. This item is transcribed directly from tax forms.

Other expenses include all other expenses such as bad debts, laundry and cleaning expenses, some taxes (such as beverage licences, business charges and taxes, interest on taxes, and fines and penalties), etc. This item is calculated as gross operating revenue - net profit - cost of goods sold - wages, salaries and benefits - occupancy expenses - financial expenses - general expenses.

Total expenses include all expenses incurred by firms and are calculated as gross operating revenue - net profit.

Net profit/loss is the profit or loss resulting from normal business operations, recorded before income taxes, extraordinary items and other income not related to normal operations. For unincorporated firms, the owners' or partners' salaries and withdrawals are included. This item is transcribed directly from tax forms.

2.2 Employment Data

Employment represents the average annual level of employment for the business. The measure is the average labour unit (ALU) which is calculated as (wages, salaries and benefits) / (average

annual earnings per employee). Average annual earnings per employee are estimated by industry and size of business from the Survey of Employment, Payrolls and Hours (SEPH). Additional information is available in Statistics Canada Catalogue No. 72-002.

2.3 Balance Sheet

Total assets are the total value of resources owned by businesses. This item is transcribed directly from tax forms.

Total current assets are the total of cash and other resources that are expected to be realized in cash, or sold or consumed within one year, or within the normal operating cycle of the business, whichever is longer. This item is transcribed directly from tax forms.

Accounts receivable includes all claims against debtors arising from the sale of goods and services and any miscellaneous claims with respect to non-trade items. Some receivables from affiliates and loans receivable are excluded. This item is transcribed directly from tax forms.

Closing inventory is the tangible property held for sale in the ordinary course of business, in the process of production for such sale, or to be consumed in the production of goods and services for sale. This would exclude articles held for rental purposes reported by the company as inventory. This item is transcribed directly from tax forms.

Other current assets include all current assets not accounted for in accounts receivable and closing inventory. This item is calculated as total current assets - accounts receivable - closing inventory.

Net fixed assets represents tangible or intangible property held by businesses for use in the production or supply of goods and services or for rental to others, but not intended for sale in the ordinary course of business. Valuation of net fixed assets is recorded net of accumulated depreciation, amortization and depletion. This item is transcribed directly from tax forms.

Other assets and adjustments include all other assets not elsewhere recorded, such as goodwill and long term bonds. This item is calculated as total assets - total current assets - net fixed assets.

Total liabilities are the claims against assets or the debts and obligations owed by businesses to creditors. This item is calculated as total assets - total equity.

Total current liabilities include debt that is expected to be paid within one year, or within the normal operating cycle, whichever is longer. Current liabilities are generally paid out of current assets. This item is transcribed directly from tax forms.

Current bank loans include all current loans and notes payable to Canadian chartered banks and foreign bank subsidiaries, with the exception of loans from a foreign bank, loans secured by real estate mortgages, bankers acceptances, bank mortgages and the current portion of long term bank

loans. This item is transcribed directly from tax forms.

Other current liabilities include short-term loans other than bank loans, accounts payable, the current portion of long term debt, advances and prepayments due to affiliates, and other current liabilities. This item is calculated as total current liabilities - current bank loans.

Long term bank loans include long term bank loans and notes payable to Canadian chartered banks and foreign subsidiaries, with the exception of loans secured by real estate mortgages, loans from foreign banks and bank mortgages. This item is transcribed directly from tax forms but is adjusted for those businesses where the current portion of long term bank loans is counted in both "other current liabilities" and "long term bank loans." Since the amount of this double counting is unknown, the adjustment is made to those records for which "other liabilities and adjustments" is negative by subtracting the negative amount from "long term bank loans."

Other liabilities and adjustments include all other liabilities not elsewhere recorded, such as long term loans other than bank loans. This item is calculated as total liabilities - total current liabilities - long-term bank loans. Negative values for individual businesses are adjusted by subtracting the negative amount from "long-term bank loans."

Total equity is the net worth of businesses and includes such elements as the value of common and preferred shares, and earned, contributed and other surpluses. This item is transcribed directly from tax forms.

2.4 Financial Ratios

There are four different types of ratios in the Profiles. **Liquidity ratios** deal with a firm's ability to meet its current financial obligations and to withstand adverse economic conditions. Liquidity refers to liquid assets, which are assets easily converted to cash and that will be converted to cash in the near future, and is an indication of short term financial strength. **Solvency ratios** deal with a firm's ability to meet its long-term financial obligations and to withstand adverse economic conditions. Solvency is the ability to pay all legal debts. This relates to the financial strength of a firm and its risk of failing. Stronger or more solvent firms have a higher probability of surviving adverse economic conditions. **Profitability ratios** measure the overall success of a firm. Profitability is a necessary condition for the long-term survival of a business. Profitability ratios attempt to measure the adequacy of operating revenue. **Efficiency ratios** measure the efficiency with which businesses utilize their assets.

Some of the ratios are expressed as percentages, which are useful in making comparisons between industries, between the same industry in different provinces or between the groupings (whole, halves and quartiles). Percentages reveal relative increases or decreases between the units of comparison.

Current ratio is calculated as (total current assets) / (total current liabilities). This is a liquidity ratio. The larger the ratio, the more liquid the business. It isn't very relevant for financial, construction and real estate industries. This ratio is also known as the working capital ratio.

Debt to equity ratio is calculated as $(\text{total liabilities}) / (\text{total equity})$. This is a solvency ratio, which indicates a firm's ability to pay its long-term debts. The lower the positive ratio is, the more solvent the business. The debt to equity ratio also provides information on the capital structure of a business - the extent to which a firm's capital is financed through debt. This ratio is relevant for all industries.

Interest coverage ratio is calculated as $(\text{net profit} + \text{interest and bank charges}) / (\text{interest and bank charges})$. This ratio calculates the average number of times that interest owing is earned and, therefore, indicates the debt risk of a business. The larger the ratio, the more able a firm is to cover its interest obligations on debt. This ratio is not very relevant for financial industries. This ratio is also known as "times interest earned."

Debt ratio is calculated as $(\text{total liabilities}) / (\text{total assets})$. This is a solvency ratio indicating a firm's ability to pay its long-term debts, the amount of debt outstanding in relation to the amount of capital. The lower the ratio, the more solvent the business.

Revenue to equity ratio is calculated as $(\text{gross operating revenue}) / (\text{equity})$. It indicates the profitability of a business, relating the gross business revenue to the amount of investment committed to earning that income. This ratio provides an indication of the economic productivity of capital.

Revenue to closing inventory ratio is calculated as $(\text{gross operating revenue}) / (\text{closing inventory})$. This is an efficiency ratio, which indicates the average liquidity of the inventory or whether a business has over or under stocked inventory. This ratio is also known as "inventory turnover" and is often calculated using "cost of goods sold" rather than "gross operating revenue." This ratio is not very relevant for financial, construction and real estate industries.

Current debt to equity is calculated as $(\text{current liabilities} * 100) / (\text{equity})$. This percentage is a measure of liquidity, which indicates a firm's relative ability to pay its short-term debts. The lower the positive ratio, the more liquid the business. The current debt to equity percentage also provides information on the capital structure of a business, the extent to which a firm's capital is financed through current debt. This ratio is relevant for all industries.

Net profit to equity is calculated as $(\text{net profit} * 100) / (\text{equity})$. This percentage indicates the profitability of a business, relating the business income to the amount of investment committed to earning that income. This percentage is also known as "return on investment" or "return on equity." The higher the percentage, the relatively better the profitability.

Net fixed assets to equity is calculated as $(\text{net fixed assets} * 100) / (\text{equity})$. Net fixed assets represent long term investment, so this percentage indicates relative capital investment structure.

Gross margin is calculated as $(\text{gross operating revenue} - \text{cost of goods sold} - \text{wages, salaries and benefits}) * 100 / (\text{gross operating revenue})$. This percentage provides a relative measure of profitability or profit margin.

Return on total assets is calculated as $(\text{net profit} + \text{interest and bank charges}) * 100 / (\text{total assets})$. This percentage, also known as "return on total investment", is a relative measure of profitability and represents the rate of return earned on the investment of total assets by a business. It reflects the combined effect of both the operating and the financing/investing activities of a business. The higher the percentage, the better is profitability.

Collection period for accounts receivable is calculated as $(\text{accounts receivable}) / (\text{average daily revenue})$. Average daily revenue is calculated as $(\text{gross operating revenue}) / (365 \text{ days})$. This ratio measures liquidity by indicating the effectiveness of the credit-granting and collection activities of the business. Increases in the collection period indicate an increasing time lag between credit sales and cash realization. This ratio is not very relevant for financial, construction and real estate industries.

2.5 Profitable vs. Non-profitable Businesses

Profitable businesses are those for which revenue is equal to or exceeds expenses during the reference period. **Non-profitable** businesses are those for which expenses exceed revenue.

3. Sources, Methods and Data Quality

3.1 Sources

The 1995 Profiles are produced using information extracted from tax returns submitted to Revenue Canada for the 1995 tax year. The financial statistics for all industries are compiled from a sample of unincorporated and incorporated businesses reporting gross revenue between \$25,000 and \$5,000,000, inclusive. Tax Data Division of Statistics Canada maintains the file.

Two Revenue Canada files define the universe of unincorporated and incorporated businesses in Canada: the Statistical Universe File – T1 and the Statistical Universe File – T2, respectively. The sample record weights used to estimate the Profiles data are based on these Revenue Canada universe files. The target population is all unincorporated and incorporated businesses with gross operating revenue between \$25,000 and \$5,000,000. The sampling frame consists of all businesses with reported gross operating revenue between \$25,000 and \$5,000,000 for which income tax returns were filed by December 1996 with Revenue Canada for the 1995 tax year.

3.2 Sample Selection

The 1995 Profiles are compiled from a sample of administrative tax records for unincorporated (T1) and incorporated (T2) businesses. The sample size is approximately 192,700 records (148,500 T1 and 44,200 T2 forms). A two-phase Bernoulli, also called Poisson, sampling process is employed. The first phase is longitudinal, with strata defined by 2-digit SIC, province and gross operating revenue. First phase selection probabilities are updated each year because a firm may fall into a different sampling stratum from year to year, and the first phase sampling fractions for a given stratum may vary from year to year. Second phase sample selection is based

on businesses with strata defined by 4-digit SIC, province and gross operating revenue.

3.3 Data Processing

Once sampling is complete, the sample selection specifications are sent to Revenue Canada. During tax processing, Revenue Canada forwards copies of the sampled tax returns, with the supporting documentation, to Statistics Canada. Data capture (transcription) is done at Statistics Canada using a computer system, which operates on an interactive mode, performing basic edit checks. Captured data are run through edit programs, which identify errors, inconsistencies and extreme values. Data that fail to meet predetermined criteria are referred to analysts for appropriate action. At this stage of processing, all industries are handled in similar fashion. A second set of edits are also applied to the data after capture to ensure that basic inconsistencies, such as sub-totals not adding to totals, do not appear.

Imputation is the process whereby records with missing data (recipient records) have values assigned based on the data of records with more complete data (donor records). Imputation is done using the "nearest neighbour" method – using matching variables, the donor record most like the recipient record is identified and the information from this donor record is used. The matching variables are usually industry, gross operating revenue and total expenses. Imputation is used in two cases – when a data point reported by a business is judged "extreme" or when a business fails to itemize all or part of the information.

After edit and imputation have been completed, estimation methods are used to relate the sample to the population. Each record is allocated a weight according to its probability of selection in the sample. The weight reflects the proportion of the population actually observed in the sample. Estimates deemed of unacceptable quality, or which violate confidentiality rules, are identified and removed. Using the weights, values are calculated for each variable in each industry, area and revenue grouping combination.

3.4 Half and Quartile Boundaries

The half and quartile boundaries are calculated for each business type by industry and by area. The businesses are ranked from lowest to highest operating revenue. The sample weights are re-scaled so that the sum of the weights equals one. The half boundary will be the gross revenue value from the record that lies exactly on the mid-point (0.50) of the re-scaled weights. The quartile boundaries will be the gross revenue values from the records which lie on the 0.25, 0.50 and 0.75 points of the re-scaled weights. Average data for the expense, balance sheet and other variables are then calculated using only those businesses allocated to each half or quartile group and the original sample weights.

3.5 Confidentiality

Statistics Canada is very aware of the importance of keeping collected data strictly confidential and is prohibited by law from releasing any information that can identify an individual, a firm or an organization. All data are subject to confidentiality restrictions prior to release. For the

Profiles, the following rules are used to determine whether data meet confidentiality restrictions.

- A Profile will not be published if the sample size is less than 5 records.
- A half or quartile will not be published if there are fewer than 4 sample records falling into the half or quartile.
- If a half or quartile is suppressed, the corresponding half or quartile is also suppressed.

Halves and quartiles data suppressed due to confidentiality will appear as blank in the Profiles. The revenue ranges will also be blank.

3.6 Data Reliability

The data in the Profiles are estimates derived from a random sample of income tax forms and are, therefore, subject to non-sampling and sampling error. The quality of the estimates depends on the combined effect of these two types of error.

Non-sampling errors are present in data whether a sample or a complete census of the population is taken. These errors may be introduced at various stages of data processing (such as coding, data entry, editing, weighting, tabulation, etc.) and include response errors introduced by tax filers as a result of misclassifications. All efforts are undertaken to minimize non-sampling errors through edits and data analysis, but some of these errors are beyond the control of Statistics Canada. Specifically, Revenue Canada tax forms are designed for the collection of income data for tax purposes and not for statistical purposes.

Sampling error arises because observations are made only on a sample and not on the entire population. Sampling error depends on factors such as sample size, variability in the population, the sample design and the method of estimation. For sample estimation, since inference is made about the entire population based on data obtained from only a part of that population, the results are likely to be different than if a complete census was taken under the same general survey conditions. The most important feature of probability sampling is that the sampling error of an estimate can be measured from the sample itself.

The sample used for the 1995 Profiles is one many possible samples that could have been selected using the same sample design under the same general conditions. If each one of these possible samples could be surveyed under essentially the same conditions, with an estimate calculated from each sample, one would expect that the sample estimates would differ from each other. The average estimate derived from all possible sample estimates is termed the "expected value." The expected value can also be expressed as the value that would be obtained if a census were conducted under identical collection and processing conditions. An estimate calculated from sample data is said to be precise if it is near the expected value. Sample estimates may differ from the "expected value". However, since the estimate is based on a probability sample, the variability of the sample estimate with respect to its expected value can be measured.

Indicators of the precision (reliability) of sample estimates or the potential size of sampling error are the variance (the average, over all possible samples, of the squared difference of the estimate

from its expected value) and the standard error (the square root of the sampling variance) of the estimates. The variance and standard error are absolute measures of precision. The coefficient of variation (CV), which is the standard error of the estimate divided by the sample estimate itself, is a relative measure of precision, useful for comparative purposes. For the Profiles, the CV is used to measure sampling error. Where possible, estimates at the whole industry level have been assigned the following reliability codes to indicate their CV ranges.

Code	CV Range (%)	Description
A	Less than 5.01	Good
B	5.01 to 15.00	Satisfactory
C	15.01 to 33.33	Poor, use with caution
F	Greater than 33.33	Suppressed

Data suppressed due to poor quality will appear as blank in the Profiles.

Sample and census estimates both aim to measure the population value exactly. We say an estimate is accurate if it is near this population value. Any difference between the expected value of an estimate and the exact population value is termed "bias." The CV cannot measure systematic bias in the data. The accuracy of a sample estimate is determined by the joint effect of sampling (as measured by the CV) and non-sampling errors. In the Profiles, no measure of non-sampling error has been developed.

Appendix C

Definitional Criteria for the Employment Dynamics (Statistics Canada, 1995)

EMPLOYMENT DYNAMICS - 1995

1. Introduction

The Employment Dynamics provide annual data on employment, payroll and the number of businesses with employees for Canada, the provinces and territories. The data are presented by size and life status of business at the 1 and 2-digit level of the Standard Industrial Classification (SIC). The Dynamics are produced annually. The most current reference year is 1995.

The Dynamics are one of two products produced by Statistics Canada's Small Business and Special Surveys Division as part of the Small Business Data Program (SBDP). The other product is the Small Business Profiles. The SBDP is funded by the following federal and provincial departments.

Industry Canada
Business Development Bank of Canada
Human Resources Development Canada
Atlantic Canada Opportunities Agency
Federal Office of Regional Development (Quebec)
Western Economic Diversification
Newfoundland Statistics Agency (Newfoundland)
Department of Economic Development and Tourism (Prince Edward Island)
Department of Finance (Nova Scotia)
Department of Economic Development and Tourism (New Brunswick)
Ministère de l'Industrie, du Commerce, de la Science et de la Technologie (Québec)
Ministry of Economic Development and Trade (Ontario)
Department of Industry, Trade and Tourism (Manitoba)
Department of Economic Development (Saskatchewan)
Department of Economic Development and Tourism (Alberta)
Central Statistics Branch (British Columbia)
Bureau of Statistics (Yukon)
Bureau of Statistics (Northwest Territories)

The Small Business and Special Surveys Division (SBSS) provides data on and for small and medium-sized businesses. SBSS makes extensive use of administrative records and existing survey information to produce detailed and cost efficient data for clients without additional response burden on businesses. As well, in cases where data do not already exist, SBSS may conduct custom surveys or projects to meet client needs. For more information, contact:

Small Business and Special Surveys Division
Statistics Canada
Jean Talon Building, 10th Floor
Ottawa, ON
K1A 0T6

Telephone: (613) 951-0822
Fax: (613) 951-1572

1.2 THE 1993 DATA

The data source for the Employment Dynamics is Revenue Canada T4 tax records. The Employment Dynamics are calculated from all businesses with paid employees. Using administrative tax files allows Statistics Canada to produce detailed employment and payroll statistics without adding response burden to individuals or businesses.

The Employment Dynamics are available for Canada, the provinces and territories. Industries are defined by the 1980 Standard Industrial Classification (SIC). The Dynamics are available at the 1-digit SIC level (Industry Divisions) and the 2-digit SIC level (Major Groups). A more complete description of the SIC coding system is available in Statistics Canada catalogue 12-501E.

Statistics Canada's processing schedule is dependent on Revenue Canada's processing schedule. Currently, the Dynamics can be released no earlier than 18 months after the end of the reference tax year.

1.3 HISTORICAL DATA

The Employment Dynamics have been produced annually since 1985. However, there was a structural change to the database in 1989 and, currently, data prior to 1989 are no longer comparable with data after 1989. The structural change consists of a change from the 1970 SIC system to the 1980 SIC system as well as a change from Business Register Division's BRID system of business identification to the current CFDB system (Central Frame Data Base).

The 1993 Employment Dynamics in FoxPro format or on paper, can be purchased through the Small Business and Special Surveys Division. Phone: (613) 951-9045. Fax: (613) 951-1572.

1.4 CHANGE TO FoxPro ELECTRONIC FORMAT

The 1992 Employment Dynamics were available electronically in XV format. For the 1993 Dynamics, a switch was made to an executable FoxPro format.

The FoxPro executable format allows data users to access the Dynamics without having to purchase additional software (executable format means the system is self-contained). Data users can print the tables, browse the data on screen, or export the data to a spreadsheet or other computer file for further manipulation.

1.5 RELATED PRODUCTS

1.5.1 Small Business Profiles

The Employment Dynamics is one of two products produced under the Small Business Data Program. The other product is the Small Business Profiles. The Small Business Profiles contain detailed financial data related to the operation of a small business (with between \$25,000 and \$5,000,000 revenue), including selected expense items, balance sheet items and performance ratios.

The Small Business Profiles are available for Canada, the provinces and territories for all 4 SIC levels: Division, Major Groups, Groups and Classes through your local Statistics Canada Regional Office or through the Small Business and Special Surveys Division.

1.5.2 Discontinued Products

The following products were formerly produced as part of the Small Business Data Program but have since been discontinued. To purchase these products or to commission an up-date, please contact the Small Business and Special Surveys Division (phone: (613) 951-9045).

Product	Last Year Available	Price
1. Employment and Payrolls by Business Size, Age and Sex	1990	\$200
2. Small Business in Canada: A Statistical Summary	1990	\$200
3. Sales per Selling Area of Independent Retailers	1991	\$200
4. Statement of Change in Financial Position, Incorporated Businesses	1991	\$200
5. Estimated Employment and Payrolls by Business Size	July-Dec 1992	\$200

2. DEFINITIONS AND CONCEPTS

Businesses - the Employment Dynamics covers only businesses with paid employees in Canada. The term "business" includes all private and public sector businesses or organizations (including public administration) which, during the initial and/or terminal year, remitted social security and tax deductions on behalf of their employees to Revenue Canada. For the corporate sector, each incorporated entity is treated as a separate unit regardless of whether it is the parent or the subsidiary of another corporation. For the unincorporated sector, each filer of a T1 tax return with paid employees is considered to be a business. An individual tax filer who submits more than one set of financial statements is counted as one business.

Business Size is based on employment size of a business, measured in Average Labour Units (ALUs). There are seven sizes:

the total of all sizes,
< 5 ALU,

5-19.9 ALU,
20-49.9 ALU,
50-99.9 ALU,
100-499.9 ALU, and
≥ 500 ALU

Businesses operating in more than one province are sized according to their ALU total across Canada. Because of the way in which the Employment Dynamics are calculated, if a business were to change size categories between the initial and terminal years, it would be counted as “newly identified” in one year and “no longer identified” in the other, which distorts the life status numbers. To avoid this problem, only one of the size codes is used for both years. For the Employment Dynamics, the size code of the initial year is imposed on the terminal year. This avoids distortion in the life status numbers but results in a distortion of the data by size of business in the terminal year. This distortion consists of some firms and their associated ALUs and payroll being counted in a size category that does not truly reflect their employment size in the terminal year. For example, a business that was less than 5 ALUs in the initial year but has actually grown to a size of between 5 and 19.9 ALUs in the terminal year, would still be counted in the Employment Dynamics tables in the “< 5 ALUs” category in the terminal year.

Business Life Status - for the two years being compared in a given Employment Dynamics table, business life status describes whether a business is identified in both years or just one year. There are three business life status categories: continuously identified, newly identified and no longer identified.

Continuously Identified Firms - if the firm exists in both the initial and terminal years of a given table, that firm is classified as “continuously identified”. These firms are then further subdivided into increasing or decreasing employment. In the case where Statistics Canada is aware of firm mergers, the new corporate structure in the terminal year is imposed backwards in time to avoid counting mergers in the “newly identified” and “no longer identified” categories.

Newly Identified Firms - if a firm is identified in the terminal year and not the initial year, that firm is classified as “newly identified”, which is similar but not identical to business start-ups or births. There may be cases where firm mergers have not yet been identified by Statistics Canada. Such firms are then erroneously but unavoidably counted in the “newly identified” and “no longer identified” categories.

No Longer Identified Firms - if a firm is identified in the initial year and not the terminal year of a given table, that firm is classified as “no longer identified”, which is similar but not identical to business closures or deaths. There may be cases where firm mergers have not yet been identified by Statistics Canada. Such firms are then erroneously but unavoidably counted in the “newly identified” and “no longer identified” categories. Also, the number of “no longer identified” firms does not represent a bankruptcy or failure rate, since there are many reasons why firms decide to discontinue operations.

ALU (Average Labour Unit) is calculated by: (total annual payroll)/(average annual earnings per employee). The ALU represents an industry's annual average LEVEL of employment, which is similar but not identical to number of jobs and number of people. Total annual payroll data are obtained from the LEAP (Longitudinal Employment Analysis Program) database. Provincial level estimates of average annual earnings per employee are obtained from SEPH (Survey of Employment, Payrolls and Hours, Statistics Canada catalogue 72-002).

SIC (Standard Industrial Classification) is Statistics Canada's standardized coding system for grouping businesses engaged in similar types of activity, in relation to similar goods and services, into non-overlapping industry categories. The SIC system has four levels of aggregation, but only two are used for the Employment Dynamics: 1-digit SIC (Divisions) and 2-digit SIC (Major Groups). Because firms can change activity and therefore SIC over time and to avoid erroneously counting such firms in the "newly identified" and "no longer identified" categories, the SIC assigned to a firm in the terminal year is imposed backwards in time. This practice, while preventing the assignment of an improper life status to a firm, results in the loss of information about structural change of business activity over time.

For businesses that operate in more than one province, SIC codes are assigned independently at each provincial level and the Canadian level according to the major activity at that geographic level. For example, if a large firm has most of its manufacturing operations in Ontario, its wholesale operations in Manitoba and its retail operations in BC, then the same company might have the following SIC structure: SIC 33 for Ontario; SIC 57 for Manitoba; SIC 65 for BC. If the overall dominant activity of the firm is retail operations, the Canada level SIC would be the same as for BC. Because SIC codes are assigned independently to each geographic area, provincial totals do not add to the Canada total.

% Size Columns - the two columns titled "% Size" contain percentage data calculated between size groups. For example, there are six size categories and if you add the percents of the line "Total - all statuses" from each of the six size categories, the sum equals 100 (+ or - 2, due to rounding). The same is true for the "Continuously identified" line, etc.

% Life Status Columns - the two columns titled "% life stat" contain percentage data calculated within one size group and between the life status categories. Within one size group, if you add the percents from the three life size categories (continuously identified, newly identified and no longer identified), the sum equals 100 as displayed in the line "Total - all statuses". The lines "increasing ALUs" and "decreasing ALUs" are sub-categories of the line "Continuously identified" and so the percentages of the two former lines sum to the latter.

3. METHODOLOGY AND DATA QUALITY

3.1 Data Source

The 1993 Employment Dynamics are produced using information extracted from administrative records composed of T4 tax records submitted to Revenue Canada for the 1993 tax year. The employment data for all industries are compiled from a tax record database containing the

universe of all Canadian firms with employees. This database, LEAP (Longitudinal Employment Analysis Program) is created and maintained by the Business and Labour Market Analysis Division of Statistics Canada.

3.2 Edits and Validation

Each new year of tax data that is added to the LEAP database undergoes a series of edit and validation checks based on cross-sectional and longitudinal analysis. Individual records as well as industry/area aggregates are scrutinized for accuracy and consistency. When first published, data in the terminal year are considered to be preliminary because significant updates to the LEAP database (mostly in the form of late tax filer records being added) can occur after the first publication.

3.3 Estimation

There are three main estimates derived from the LEAP database, employment, payroll and number of businesses. It is also possible to obtain these estimates by size of business. The payroll and number of businesses data are obtained by summing the individual records in the database. The employment data, measured in ALUs (Average Labour Units) are obtained through a somewhat different process.

Basically, an ALU represents a firm's annual average level of employment. The ALU is calculated by dividing annual total payroll of a firm by average annual earnings per employee of that firm. The numerator in this calculation, annual total employment, is available directly from LEAP. However, the denominator, average earnings per employee, is not directly available and must be estimated from SEPH data (Survey of Employment, Payrolls and Hours). SEPH data are only available at the 3-digit SIC and province levels.

3.4 Confidentiality Provisions and Data Suppression

Statistics Canada is keenly aware of the importance of keeping collected data strictly confidential. In fact, Statistics Canada is prohibited by law from releasing any information that can identify an individual, a business or an organization. All tabulated data are subject to confidentiality restrictions prior to release.

Other reasons for data suppression include quality concerns as identified by high coefficients of variation or by manual validation procedures.

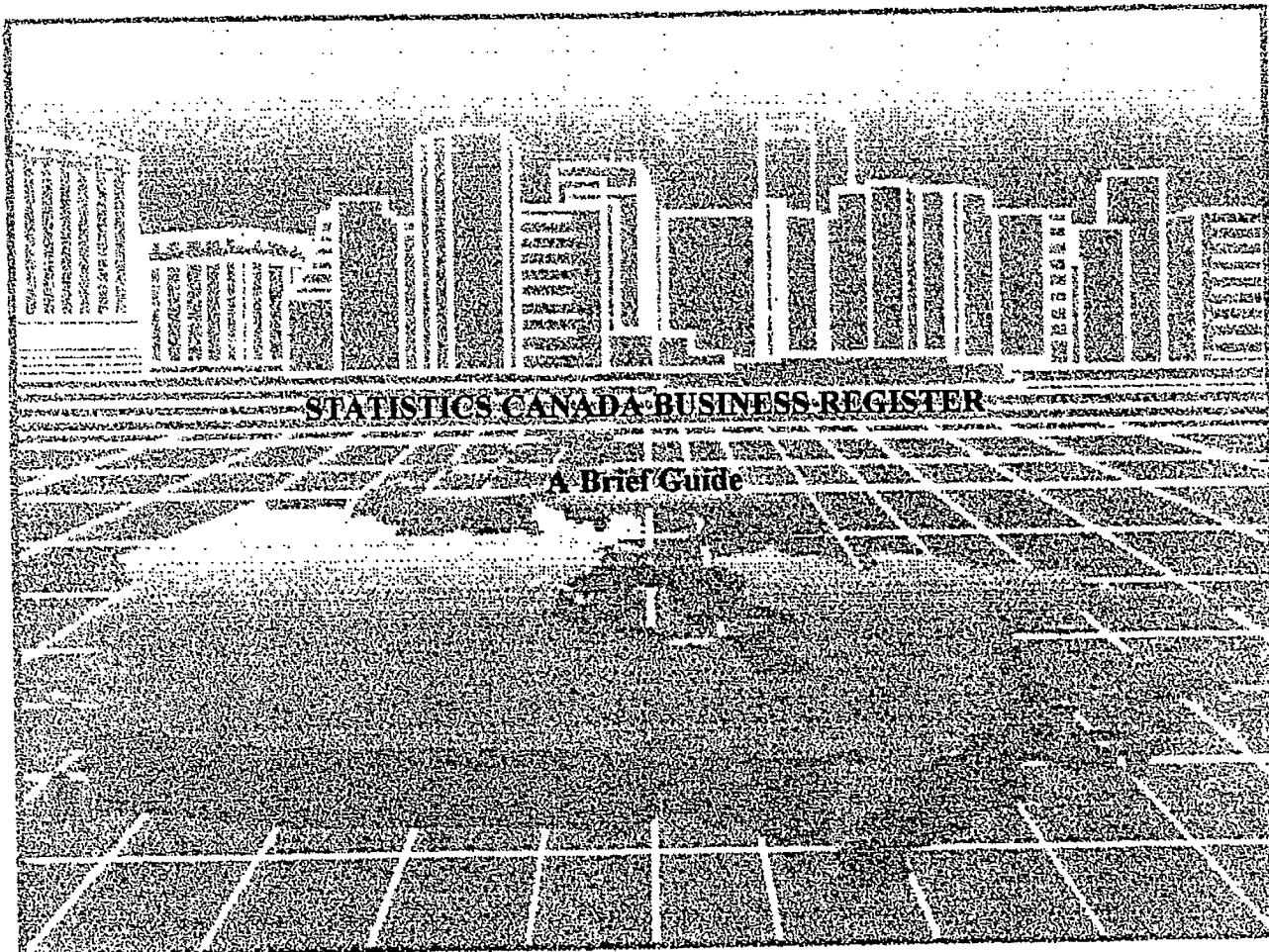
3.5 Reliability of Information

The Employment Dynamics data are derived from a universe file of all businesses with paid employees and are only subject to non-sampling errors. Non-sampling errors are present in data whether a sample or a complete census of the population is taken. These errors may be introduced at various stages of data processing (such as coding, data entry, editing, tabulation, etc.) and include response errors introduced by the taxfilers as a result of misclassifications. All

efforts are undertaken to minimize non-sampling errors through edits and data analysis, but some of these errors are outside the control of Statistics Canada. Specifically, Revenue Canada tax forms are designed for the collection of income data for tax purposes and not for statistical purposes. In the context of the Employment Dynamics, no measure of non-sampling error has been developed.

Appendix D

Statistics Canada Business Register (Statistics Canada, 1998)



What is a Business Register?

A business register is a structured list of business engaged in the production of goods and services in Canada.

What are the main uses of a Business Register?

The list is used by statistical programs to determine the "in-scope" population, to select a sample and to conduct inquiries.

The list can be used to conduct demographic studies of businesses.

Why a central Business Register?

A central Business Register provides the framework for the production of coherent statistics for National Accounts and the conduct of analytical studies linking data from the different business surveys.

A central Business Register is also less costly to operate than the maintenance of numerous local business frames within each statistical program.

What type of economic entities are covered?

The Business Register includes incorporated businesses, unincorporated businesses, commercial enterprises, non-profit organizations, religious organizations, government departments and government institutions for all industrial sector of the economy.

Is the coverage exhaustive?

Businesses without employees are not included in the Business Register. These non-employer businesses are mainly very small businesses (self-employed) and some non-profit organizations.

What are the main sources of information?

- ⇒ **Administrative information** - Details of businesses registered as employers to the Taxation Authority.
- ⇒ **Survey Feedback** - Frame changes detected by statistical programs during the conduct of their respective inquiries.
- ⇒ **Frame Surveys** - Inquiries designed to maintain the Business Register up to date.

What informations exist on the Business Register?

- ⇒ **Identification information**
 - ⇒ Name (legal and operating name)
 - ⇒ Address (physical location)
- ⇒ **Classification information**
 - ⇒ Standard industrial classification code
 - ⇒ Standard geographical classification code
 - ⇒ Size code based on the number of employees
 - ⇒ Size code based on gross business income.

⇒ **Linkage information**

⇒ Identification number giving access to the employer records. For large businesses, linkage to the corporate tax number is also maintained.

⇒ **Business Organization information** - Legal and operating composition of large enterprises.

⇒ **Survey arrangements** - Questionnaires directed to businesses selected for statistical inquiries.

Where does the Classification originate from?

⇒ **Industrial Classification** - The industrial classification code is assigned by Statistics Canada from the description provided by the business when registering with the Taxation Authorities. The industrial code is updated when new information is made available from survey programs and Business Register inquiries.

⇒ **Size Classification** - The size classification is based on a model that estimates the number of employees and gross business income based on the value of employer remittances to Taxation Authorities. The size classification is systematically updated as soon as the model detects a change significant enough to transfer the business to a different size range.

⇒ **Geographical Classification** - The geographical classification is derived from the postal code component of the physical address of the business. The geographical classification is systematically updated as soon as the business changes its postal code.

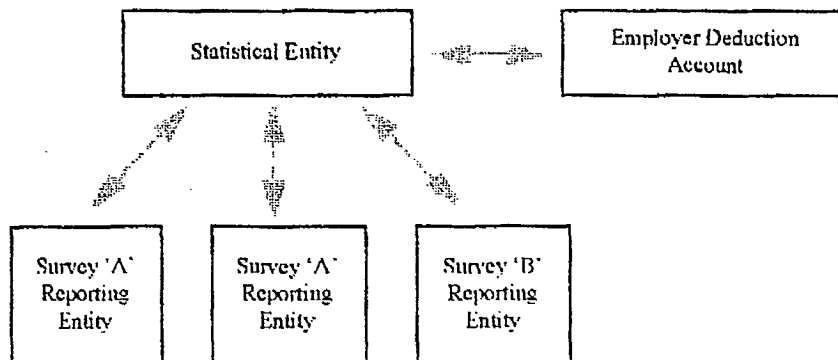
How is a small business represented for the Business Register?

⇒ **Administrative Entity** - The Employer Deduction Account with the Taxation Authorities forms the basis for a business.

⇒ **Statistical Entity** - For small businesses, there is only one statistical entity.

⇒ **Survey Reporting Entity** - The reporting entity holds all information required to manage a statistical inquiry. The reporting entity includes information such as the mailing address, the contact person, the telephone and fax numbers, the method of collection and follow-up for non-response, etc.

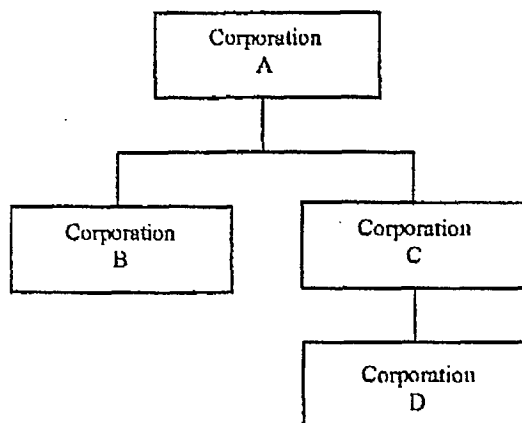
LINKS BETWEEN ENTITIES



How are large businesses represented on the Business Register?

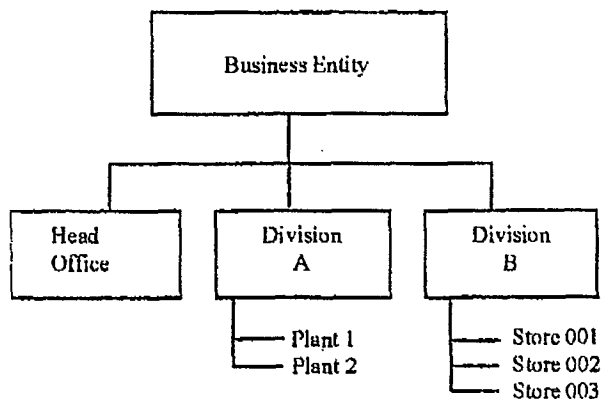
- ⇒ **Administrative Record** - Both the Employer Deduction Account and the Corporate Income Tax Account are linked for large businesses.
- ⇒ **Legal Entity** - The legal entity record represents normally a corporation. Corporations through share ownership can own and control other corporation(s). A group of corporations under common ownership and control is referred to as the legal structure.

LEGAL STRUCTURE



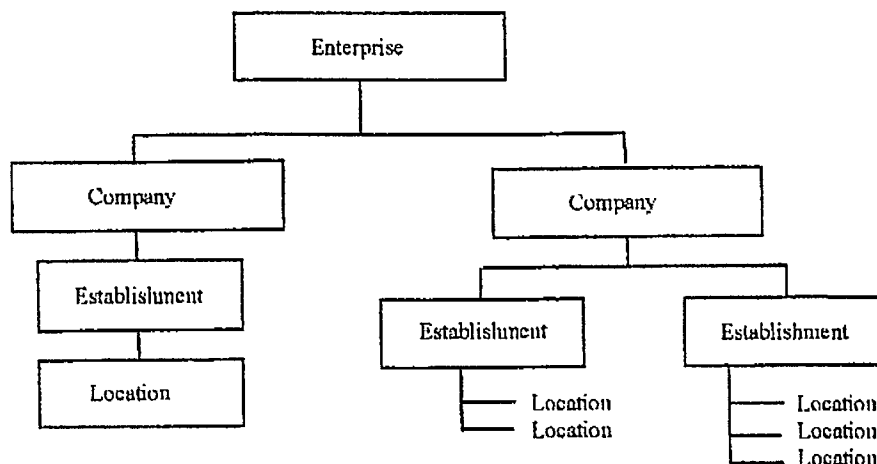
- ⇒ **Business Entity** - The Business Entity represents an economic transactor having the responsibility and the authority to allocate resources in the production of goods and services. The operating structure represents the organization of the production entities of the Business Entity.

OPERATING STRUCTURE OF THE BUSINESS ENTITY

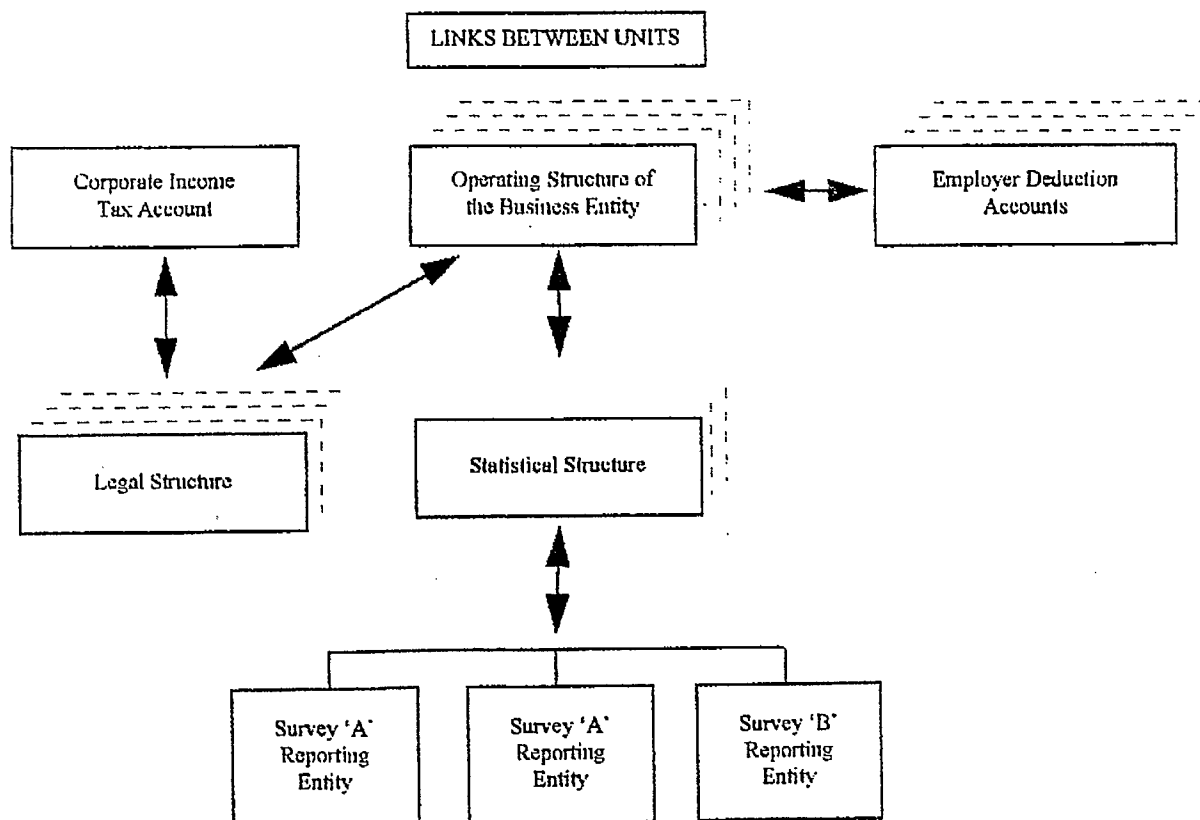


- ➔ **Statistical Entity** - Statistical entities are derived from data contained in the operating structure according to pre-specified rules. For large businesses, there are four types of statistical entities: enterprise, company, establishment, location.

STATISTICAL STRUCTURE



- ➔ **Survey Reporting Entity** - Reporting entities contain all information required to manage a statistical inquiry. The reporting entity includes information such as the mailing address, the contact person, the telephone and fax numbers, the method of collection and follow-up for non-response, etc.



How is the Business Register updated?

- ➔ Once a month, new businesses and businesses that have ceased activities are identified by processing the current version of the Employer Deduction Account file from the Taxation Authorities. This monthly processing also updates changes to name, address and size measurements for small businesses.
- ➔ Large businesses are updated on a continuous basis using survey feedback and results of frame inquiries.

What is the "quality" of the Business Register?

- ➔ The accuracy of the information on the Business Register is measured regularly. These measurements are used to develop survey sampling methodologies and data collection strategies as well as to manage Business Register improvements.

Who uses the Business Register?

- ➔ Business Survey programs of Statistics Canada
- ➔ Survey programs of provincial statistical agencies
- ➔ Statistical programs of other federal and provincial government departments.

Does the general public have access to the Business Register?

The general public does not have access to the Business Register. Information on the Business Register is confidential as specified by the Statistics Act and by the Revenue Canada Act.

However, statistical tabulations of the number of businesses can be provided to the general public.

What information is available to the general public?

- ➔ *The Canadian Business Patterns* - Counts of establishments classified by industry activity and employment size are available in a diskette format. The Canadian Business Patterns diskette contains both the data and the PC-based retrieval software capable of creating and manipulating tables.

A new version of the Canadian Business Patterns is produced twice a year.

How many businesses are on the Business Register?

	Businesses	Establishments	Locations
Large and Complex Businesses	300	13,000	24,000
Multi-location Businesses	18,000	54,000	93,000
Single-location Businesses	865,000	865,000	865,000
TOTAL	883,300	932,000	982,000

sources, the Establishment survey and the Administrative records.

Average weekly earnings for all employees:

Average weekly earnings are derived by dividing total weekly payrolls by the payroll employment.

Average weekly hours for employees paid by the hour and standard work week for salaried employees:

Average weekly hours are obtained by dividing the total paid weekly hours for employees paid by the hour by the number of employees paid by the hour. Total paid hours are defined as all hours paid including overtime hours plus hours of paid absence. *Although the standard work week for salaried employees is not included in this document, this data remains available.*

Average hourly earnings (including overtime) for employees paid by the hour:

Is obtained by dividing the total weekly payrolls for employees paid by the hour by the total number of weekly hours for employees paid by the hour. Average hourly earnings are calculated for the hourly-rated employees and for the *salaried employees.

*Data for other employees and salaried employees are available in the monthly publication (cat 72-002-XPB) or directly from the Labour Division ((613) 951-4090).

La rémunération brute est obtenue en additionnant les revenus provenant de sources différentes soit l'enquête sur les établissements et les dossiers administratifs.

Rémunération hebdomadaire moyenne pour l'ensemble de salariés:

La rémunération hebdomadaire moyenne est calculée en divisant la masse salariale brute imposable par le nombre de salariés inscrits sur la liste de paye.

Heures hebdomadaires moyennes pour les salariés rémunérés à l'heure et la semaine normale de travail des employés:

Les heures hebdomadaires moyennes sont calculées en divisant le nombre total d'heures hebdomadaires rémunérées des salariés rémunérés à l'heure par le nombre de salariés rémunérés à l'heure. Le nombre total d'heures rémunérées est défini comme étant toutes les heures payées y compris les heures supplémentaires et les heures d'absence payées. *Même si le nombre d'heures d'une semaine normale de travail ne figure pas dans ce document, ces données demeurent disponibles.*

Rémunération horaire moyenne (incluant le temps supplémentaire) des salariés rémunérés à l'heure:

La rémunération horaire moyenne est calculée en divisant la rémunération hebdomadaire brute des salariés rémunérés à l'heure par le nombre d'heures travaillées de ces mêmes salariés. La rémunération horaire moyenne est calculée à l'égard des salariés rémunérés à l'heure et des *employés.

*Les données pour les autres salariés et pour les employés sont disponibles soit dans la publication mensuelle (72-002-XPB) ou auprès de la division du travail au ((613) 951-4090).

**Release Dates for Employment, Earnings and Hours 1997
Dates d'émission d'Emploi, gains et durée du travail 1997**

**Reference Period
Période de référence**

January - janvier / 1997
February - février
March - mars
April - avril
May - mai
June - juin
July - juillet
August - août
September - septembre
October - octobre

**Release Dates
Dates d'émission**

March - 27 - mars
April - 24 - avril
May - 29 - mai
June - 25 - juin
July - 25 - juillet
August - 28 - août
September - 23 - septembre
October - 23 - octobre
November - 25 - novembre
December - 23 - décembre

The employees are classified into the following categories:

- a) **Employees paid by the hour:** any employee whose basic wage is expressed as an hourly rate.

Employment for Elementary and Secondary (851), Post Secondary (852) and University (853) education industries, represent in this category **non-teaching staff**: All employees other than teachers and academic staff, for example; president, vice-president, librarian, registrar, bursar, accountant, guidance counsellor, laboratory technician, personnel officer and other services (janitor, caretaker, bus driver, etc.).

- b) ***Salaried employees :** any employee whose basic remuneration is a fixed amount for at least one week. *Although this variable is not included in this document, the data remains available.*

Employment for Elementary and Secondary (851), Post Secondary (852) and University (853) education industries, represent in this category **teaching staff**: those classified as teachers, instructors or academics in the payroll records (e.g. principal, professor, dean, head of department, master, teacher, etc.) whether they teach during the day or evening. Supply or substitute teachers are excluded.

- c) ***Other employees:** those employees whose basic remuneration is in the form of commissions, piece rates, mileage allowances, etc. *Although this variable is not included in this document, the data remains available*

Employment for Elementary and Secondary (851), Post Secondary (852) and University (853) education industries, represent in this category **supply or substitute teachers**: teachers who are called in as needed either to augment existing staff or as short-term replacements for a full-time or part-time teachers.

Weekly Payrolls:

Weekly payrolls are defined as the portion of gross monthly payrolls that reflect work performed during the reference week. It represents the gross dollar value before deductions for income taxes, unemployment insurance contributions etc., including regular pay, overtime and a portion of bonuses, commissions and other type of special payments. The payroll concept excludes dollar amounts that are taxable allowances and benefits, certain types of non-wage compensation as well as employer contributions to unemployment insurance, Canada/Quebec pension plans, provincial medical plans, workers compensation and other welfare plans. Some annual special payments are excluded while other lump sum special payments are adjusted to coincide with the reference week period.

The payroll is derived by adding up data derived from two

Les salariés sont classés dans les catégories suivantes:

- a) **Salariés rémunérés à l'heure:** tout salarié dont la rémunération de base est calculée selon un taux horaire.

L'emploi pour les industries d'enseignement élémentaire et secondaire (851), post secondaire (852) et universitaire (853), représente dans cette catégorie le **personnel non enseignant**: tous les salariés autres que le personnel enseignant, c'est-à-dire le président, le vice-président, le bibliothécaire, le secrétaire général, l'économe, le comptable, les orienteurs, les techniciens de laboratoire, les agents du personnel ainsi que les autres services (le concierge, pourvoyeur, chauffeur d'autobus, etc.).

- b) ***Employés:** tout salarié dont la rémunération de base constitue une somme fixe versée pour au moins une semaine. *Même si cette variable ne figure pas dans ce document, elle demeure disponible.*

L'emploi pour les industries d'enseignement élémentaire et secondaire (851), post secondaire (852) et universitaire (853), représente dans cette catégorie le **personnel enseignant**: tout travailleur classé comme enseignant ou chargé de cours dans les dossiers du service de la paye (directeur, professeurs, doyens, chefs de département, maîtres, enseignants, etc.), qu'il enseigne le jour ou le soir. Les suppléants ou remplaçants sont exclus.

- c) ***Autres salariés:** tout salarié dont la rémunération de base se présente sous forme de commissions, de salaire à la pièce, d'indemnités de milage, etc. *Même si cette variable ne figure pas dans ce document, elle demeure disponible.*

L'emploi pour les industries d'enseignement élémentaire et secondaire (851), post secondaire (852) et universitaire (853), représente dans cette catégorie le personnel **suppléants ou remplaçants**: enseignants appelés à se présenter au travail lorsqu'on a besoin de leurs services soit pour accroître le personnel existant, soit pour remplacer pendant une courte période un enseignant à temps plein ou à temps partiel.

Rémunération hebdomadaire brute:

La rémunération brute est définie comme étant la partie de la rémunération hebdomadaire brute qui reflète le travail accompli durant la semaine de référence. Ça représente la valeur brute en dollars avant les déductions pour l'impôt sur le revenu, les contributions à l'assurance-chômage etc., incluant le salaire régulier, le surtemps et la partie bonus, commissions et tout autres types de paiements spéciaux. Les concepts sur la rémunération, ne comprend pas les montants en dollars qui représentent des allocations et des avantages imposables, certains types d'indemnités non salariales ainsi que les cotisations patronales à l'assurance-chômage, au régime de pension du Canada ou au Régime des rentes du Québec, aux régimes d'assurance-maladie provinciaux, aux caisses d'indemnisation des accidents du travail et à d'autres régimes de prévoyance. Les paiements annuels spéciaux sont exclus tandis que les paiements forfaitaires spéciaux sont rajustés de façon à coïncider avec la semaine de référence.

- i) Banks (700) consist of the following industries; Central Bank (701), Chartered Banks and other banking-type intermediaries (702).
- j) Other amusement and recreational services (960) consist of the following industries; commercial spectator sports (964), gambling operations (966) and other amusement and recreational services (969).
- k) Public Administration (812-837) contains only the establishments engaged in activities that are governmental in character and those serving as internal service agencies of the public service. Government owned establishments primarily engaged in activities assigned to other industries are classified in those industries along with similar establishments owned by non-government bodies. Therefore, data included in this industry division do not represent the actual number of persons employed by government at any level.

Variables

Employee

The employment is derived by adding up data derived from two sources; the establishment survey and from the administrative records. Since the data for the different employee categories are not reported on the administrative records the BPS survey is conducted to estimate ratios needed to calculate those variables.

The survey determines an employee as being any person drawing pay for services rendered or for paid absences and for whom the employer must complete a Revenue Canada T-4 Supplementary Form.

The employee concept includes full-time employees, part-time employees (those who regularly work fewer hours than the standard work week of the establishment). It also comprises working owners, directors, partners and other officers of incorporated businesses.

The definition excludes owners or partners of unincorporated businesses, the self-employed, unpaid family workers, persons working outside Canada, military personnel and casual workers for whom a T-4 is not required. It also excludes those who did not receive any pay from the employer for the entire survey reference period (e.g. persons on strike, persons on unpaid holidays, persons receiving remuneration from an insurance, Workmen's compensation or other related fund, etc.). However, employees paid for part of the reference period and unemployed or on strike for the rest of this period are included in the survey.

- i) Banques (700) englobe les industries suivantes; banque centrale (701) et banques à charte et autres intermédiaires de type bancaire (702).
- j) Services de divertissements et de loisirs (960) englobe les industries suivantes; sports commerciaux (964), loteries et jeux de hasard (966) et autres services de divertissements et de loisir (969).
- k) Administration publique (812-837) comprend seulement les établissements dont les activités ont un caractère essentiellement gouvernemental, et les organismes auxiliaires assurant les services internes de l'État. Les établissements publics dont l'activité dominante relève d'autres activités économiques sont classés sous les mêmes rubriques que les établissements privés semblables. Ainsi, les données publiées pour cette division économique ne représentent pas le nombre réel de personnes employées par les différents pouvoirs publics.

Variables

Salarié

L'emploi est obtenu en additionnant les données provenant de sources différentes; l'enquête sur les établissements et des dossiers administratifs. Toutefois les estimations pour les différents types d'emplois ne sont pas rapportées sur les dossiers administratifs, l'enquête ERE est effectuée en vue de recueillir des données afin de calculer les ratios servant à estimer ces variables.

L'enquête définit un employé comme étant toute personne rétribuée pour ses services ou ses absences et pour laquelle l'employeur doit remplir une déclaration T-4 Supplémentaire de Revenu Canada.

Le terme "salarié" désigne les salariés à temps plein et à temps partiel (ceux qui travaillent régulièrement un nombre d'heures inférieur à la semaine normale de travail de l'entreprise). Il désigne aussi les propriétaires, administrateurs, associés et autres dirigeants actifs des entreprises constituées en corporation.

Le concept de salarié exclut les propriétaires et les associés des entreprises non constituées en corporation, les travailleurs autonomes, les travailleurs familiaux non rémunérés, les personnes travaillant à l'extérieur du Canada et le personnel militaire et les employés occasionnels dont l'employeur n'est pas tenu de remplir la formule T4. Sont également exclus les travailleurs n'ayant pas reçu de paye de leur employeur pendant la période de référence de l'enquête (c.-à-d. les personnes en grève, en congé non payé, les personnes recevant une rémunération aux termes d'un régime d'assurance, d'une caisse d'indemnisation des accidents au travail ou d'un régime analogue, etc.). Cependant, les travailleurs rémunérés pour une partie de la période de référence et en chômage ou en grève pour le reste de la période sont inclus dans l'enquête.

publication, a column is identified "S.I.C. Code" and corresponds to that manual. SEPH has 281 industry groups in scope. For analytical purposes, special groupings which not part of the Standard Industrial Classification, have been created.

- a) Industrial aggregate (000-999) represents the sum of all the industries included in the survey. Since January 1994, employment estimates for the Industrial aggregate include the unclassified businesses.
- b) Unclassified businesses (000) represents businesses that have not yet been classified to an SIC, a province or a territory. Since January 1994, employment estimates for industrial aggregate includes the unclassified businesses.
- c) Goods-producing industries (041-449)(491-499) consist of the following industries; forestry, mining, manufacturing, construction and other utilities industries.
- d) Service-producing industries (451-484)(501-999) consist of the following industries; transportation, communication and storage, trade, finance and insurance, services (except religious organizations and private households) and public administration industries (except for defence services and other government services).
- e) Durable goods (39U) manufacturing consist of the following industries; wood (251-259), furniture and fixtures (261-269), primary metal (291-299), fabricated metal products (301-309), machinery (311-319), transportation equipment (321-329), electrical and electronic products (331-339) and non-metallic mineral products (351-359).
- f) Non-durable goods (37U) manufacturing consist of the following industries; food (101-109), beverage (111-114), tobacco (121-122), rubber products (151-159), plastic products (161-169), leather products (171), primary textile (181-183), textile products (191-199), clothing (243-249), paper and allied products (271-279), printing, publishing and allied (281-284), refined petroleum and coal products (361-369), chemical and chemical products (371-379) and other manufacturing industries (391-399).
- g) Commercial services (95U) consist of the following industries; business services (771-779), accommodation services (911-914), food and beverage services (921-922), amusement and recreational services (961-969), personal services (971-979), membership organization (982-986) and other service industries (991-999).
- h) Non-commercial services (94U) consist of the following industries; educational and related services (851-859) and health and social services (861-869).

une colonne est identifiée "CTI 1980". Ces codes correspondent à ce manuel. On compte 281 groupes d'activités visées par l'EERH. À des fins analytiques, nous avons créé des groupes spéciaux qui ne figurent pas dans la Classification type des industries.

- a) Ensemble des industries (000-999) représente la somme de toutes les industries visées par l'enquête. Depuis janvier 1994, l'emploi pour l'ensemble des industries comprend les entreprises non classifiées.
- b) Les entreprises non classifiées (000) représentent des entreprises n'ayant pas été identifiées à une classification industrielle, une province ou un territoire. Depuis janvier 1994, l'emploi des entreprises non classifiées est compris dans l'ensemble des industries.
- c) Branche productrice de biens (041-449)(491-499) englobe les industries suivantes; forêts, mines, manufactures, construction et autres services publics.
- d) Branche productrice de services (451-484)(501-999) englobe les industries suivantes; transports, communications et entreposage, commerce, finances et assurances, services (sauf les organismes religieux et les ménages privés) et l'administration publique (excepté les services de la défense et autres services gouvernementaux).
- e) Biens durables (39U) des industries manufacturières englobe les industries suivantes; bois (251-259), meubles et articles d'ameublement (261-269), première transformation des métaux (291-299), fabrication des produits métalliques (301-309), machinerie (311-319), matériel de transport (321-329), produits électriques et électroniques (331-339) et produits minéraux non métalliques (351-359).
- f) Biens non durables (37U) des industries manufacturières englobe les industries suivantes; aliments (101-109), boisson (111-114), tabac (121-122), produits en caoutchouc (151-159), produits en matière plastique (161-169), cuir (171), première transformation du textile (181-183), produits textiles (191-199), habillement (243-249), papier et produits connexes (271-279), imprimerie, édition et industries connexes (281-284), produits raffinés du pétrole et du charbon (361-369), produits chimiques (371-379) et autres industries manufacturières (391-399).
- g) Services commerciaux (95U) englobe les industries suivantes; services aux entreprises (771-779), hébergement (911-914), restauration (921-922), services de divertissements et loisirs (961-969), services personnels (971-979), associations commerciales (982-986) et autres industries de services (991-999).
- h) Services non commerciaux (94U) englobe les industries suivantes; services d'enseignement et services annexes (851-859) et services de soins de santé et services sociaux (861-869).

Survey Overview

The monthly Survey of Employment, Payrolls and Hours is designed to measure the levels and month-to-month trends of payroll employment, paid hours and earnings. The data are compiled at detailed industrial levels for Canada, provinces and territories.

The target population is composed of all employers in Canada, except those in agriculture, fishing and trapping, private households services, religious organizations and defence services. Conceptually, the SEPH reference period is the last seven days of the month, but the questionnaire asks respondents to report for the last pay period in the month.

Methodology

The statistics contained in this publication are based on:

- a census of establishments within enterprises with a complex structure and having approximately 300 or more employees,
- a census of administrative records having approximately 100 employees or more,
- a sample of administrative records having approximately 99 employees or less,
- a sample survey (BPS) conducted to estimate the variables not reported on administrative records.

The total payroll employment estimates are derived by adding up the employment data obtained by integrating two different sources, the Establishment survey and the Administrative records. However, processes are independent for the sample selection, data collection and estimation. The Establishment Survey accounts for about 35% of the total payroll employment, while the remaining portion is from Administrative records. The Business Payrolls Survey (BPS) is conducted monthly to collect data that is utilized in the calculation of ratios and regression coefficient needed to estimate data not reported on the administrative records. Combining different sources, BPS, Administrative Survey, and Establishment Survey results in the full range of SEPH variables.

TERMS AND DEFINITIONS

Industry classification: On the basis of its principal activity, each establishment is assigned an industry code according to the 1980 Standard Industrial Classification (SIC). A description of the various industries and groups of industries is contained in the "Standard Industrial Classification Manual", Catalogue 12-501-XPB. In the tables of this

Aperçu de l'enquête

L'enquête mensuelle sur l'emploi, la rémunération et les heures a pour objet de mesurer les niveaux et les tendances mensuelles de l'ensemble des salariés inscrits sur la liste de paye, des heures rémunérées et des gains. Ces données sont rassemblées à des niveaux détaillés selon l'activité économique pour le Canada, les provinces et les territoires.

La population cible comprend tous les employeurs au Canada sauf ceux des secteurs de l'agriculture, de la pêche et du piégeage, des services domestiques, des ménages, des organismes religieux et des services de la défense. En théorie, la période de référence de l'EERH correspond aux sept derniers jours du mois, mais les répondants doivent remplir le questionnaire en tenant compte de la dernière période de paye du mois.

Méthodologie

Les statistiques comprises dans la présente publication sont fondées sur:

- un recensement d'établissements à l'intérieur d'entreprises ayant une structure complexe et comprenant approximativement plus de 300 salariés,
- un recensement des dossiers administratifs comprenant approximativement 100 salariés ou plus,
- un échantillon des dossiers administratifs comprenant approximativement 99 salariés ou moins,
- une enquête-échantillon (ERE) servant de base pour estimer les variables non rapportées sur les dossiers administratifs.

Le nombre total de salariés inscrits sur la liste de paye est obtenu en additionnant l'emploi provenant de deux différents volets de l'enquête soit celui des enquêtes sur les établissements et celui des dossiers administratifs. Toutefois, les procédés sont distincts pour le choix de l'échantillon, la collecte des données et les estimations. L'enquête sur les établissements représente environ 35% du total des salariés inscrits sur les listes de paye, le reste provenant des dossiers administratifs. L'Enquête sur la rémunération auprès des entreprises (ERE) est effectuée chaque mois en vue de recueillir des données afin de calculer des ratios et des coefficients de régression, servant à estimer les données qui ne sont pas rapportées sur les dossiers administratifs. Ces différents volets soit l'ERE, les dossiers administratifs ainsi que l'enquête sur les établissements sont combinés en vue de produire toutes les variables propres à l'EERH.

TERMES ET DÉFINITIONS

Classement par activité économique: Un code d'activité économique tiré de la Classification type des industries de 1980 (CTI) est attribué à chaque établissement selon sa principale activité. Les industries et les différents groupes industriels sont décrits dans le manuel "Classification Type des Industries 1980 catalogue 12-501-XPB. Dans les tableaux de cette publication

Industrial Sectors	Distribution of Businesses
Agricultural and Related Services	6%
Fishing and Trapping	1%
Logging and Forestry	1%
Mining (including milling), Quarrying and Oil Wells	1%
Manufacturing	7%
Construction	11%
Transportation and Storage	4%
Communication and Other Utilities	1%
Wholesale Trade	7%
Retail Trade	16%
Finance and Insurance	3%
Real Estate Operators and Insurance Agents	4%
Business Services	10%
Government Services	1%
Educational Services	1%
Health and Social Services	8%
Accommodation, Food and Beverage Services	7%
Other Services	12%
<i>Total</i>	<i>100%</i>

TO :
FROM : KX-F110

PHONE NO. : 9545492

APR. 29. 1998 12:02PM P 1

Equinox Management Consultants Ltd.

229 Crocus Avenue, Ottawa, Ontario, Canada
(613) 523-4581 Fax: (613) 523-0976

Important Fax

Attention: James Kendrick
Fax: 613-954-5492
Number of Pages (Including cover): 2

From: Barbara Orser
Tel: 613-523-4581
Fax: 613-523-0976

**Re: Small Business Definitions
and Research Issues**

Hello James,

Here is the report introduction for contract purposes. I hope to have a draft of the report to you by Monday. FYI - I received the information from Elina this afternoon.

I realized after we spoke that *Home Enterprise, Canadians and Home-based Work* (Orser and Foster) was published in 1991 (not 1994). Let me know if you need a copy.

Regards,

Barbara

Small Business Definitions and Research Issues

Background and Objective

This report addresses two objectives:

- to document definitional issues pertaining to small business research; and,
- to familiarize members of the Research Advisory Committee on Entrepreneurship (RACE) with the nomenclature and terminology used to describe the Canadian small business marketplace.

To accomplish these objectives the report begins with a taxonomy of various types of small businesses. This is followed by a sampling of various definitions employed by stakeholders. The report then "maps" these definitions and taxonomies on the major statistical Canadian databases. The report closes with a discussion of the implications for small business research.

Equinox Management Consultants Ltd.

229 Crocus Avenue, Ottawa, Ontario, Canada
(613) 523-4581 Fax: (613) 523-0976

May 5, 1998

Mr. James Kendrick,
Team Leader, Policy Development and Research
Entrepreneurship and Small Business Office
5th Floor East
235 Queen Street, Room 561A
Ottawa, Ontario
K1A 0H5

Dear James,

Enclosed please find three (draft) copies of the report titled:

Definitions of Small Business: Issues for Public Policy

I hope to have the opportunity to discuss this report at your earliest convenience.

Yours sincerely,



Barbara Orser

Statement of WorkRe: Discussion Paper on Small Business Definitions

The contractor will prepare a brief, but thorough, discussion paper on small business definitions in use that will be distributed to participants attending the May 25-27 Meeting on Small Business Data Requirements in Ottawa. At the meeting, representatives from federal, provincial and territorial governments, universities, industry associations, and the private sector will discuss the main policy issues around small business, sources of Statistics Canada and other data, and specific data needs in the future. This meeting is the first in a series of planned meetings of the Research Advisory Committee on Entrepreneurship (RACE).

A discussion paper describing the issues associated with "definitions" in the small business domain and an overview of what definitions are currently being used will help participants prepare for the May 25-27 meeting. The outline of the discussion paper is as follows:

- 1) Statement of the problem and an overview of the issues related to inconsistent small business definitions
- 2) Compendium of definitions currently used by such organizations as Statistics Canada, Revenue Canada, government funding agencies, Canadian Chamber of Commerce, Canadian Federation of Independent Business, Industry Canada, and by the SME research community:
 - a) What elements are currently used to define a small business, i.e., employee size, asset size, number of jobs, percent of market share, revenue, exports, etc?
 - b) What definitions are currently used to define: A business? A small business? A medium-sized business? A large business? A self-employed person? (When is someone considered self-employed?) An Establishment? An Employer business? A knowledge-based enterprise? A cooperative? A business owner? A small business owner? A small business exporter? A new economy business?
 - c) What definitions are in use for: Entrepreneur? Young entrepreneur? Youth-owned business? Woman-owned business? Rural entrepreneur? Aboriginal-owned business? Immigrant entrepreneur? Micro-business? Small-office home-office? Home-based business? Quantitative definition of a growth SME, i.e., à la Birch versus Baldwin? Family business?
- 3) Identification and discussion of issues arising from the various definitions used and potential impact on research and policy making. For example, what is the impact of the apparent lack of consistency in the use of standard definitions on comparative analyses? Are current size limits appropriate for research and policy making, i.e., is 100 employees an adequate upper bound to define "small" when the majority of businesses in Canada has less than 5 employees? Are there sectoral biases in defining small businesses? At what point does someone become a business owner, i.e., how many components (finance, marketing, production, human resources) does one have to manage to be deemed a business owner? When is a business youth-owned or woman-owned? What international benchmarks are available regarding definitions? What are the emerging definitions in the field?

The contract will cover 5 days of work at \$750 per day for a total cost of \$ 3,750, plus GST. The work will be completed by May 8, 1998.