Unified Enterprise Survey

Data Quality Statement

Couriers and Local Messengers Industry

Reference Year 2005

Statistics Canada

November 2007

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1.0 Introduction

The 2005 Couriers and Local Messengers Industry Survey results represent fiscal year estimates of financial and operating statistics for the industry.

Classified under the North American Industrial Classification System (NAICS) code 492, this industry comprises establishments primarily engaged in providing courier delivery services, or messenger and delivery services of small parcels within a single urban area. The type and size of parcels carried, the speed of delivery, and premium services such as guaranteed delivery and track and trace service are the main features of their activities.

Results from this survey provide information on the major categories of revenue and expenses as well as information on the volume of business, origin and destination of shipments and number of vehicles in service.

These results contribute to national and provincial/territorial economic production estimates in Canada. They are also used by private sector businesses for industry performance measurement and market development.

The survey is currently administered as part of the Unified Enterprise Survey Program (UES). The UES program has been integrating, gradually over time, the approximately 200 separate business surveys into a single master survey program. The UES aims at collecting more industry and commodity detail at the provincial level than was previously possible while avoiding overlap between different survey questionnaires. The redesigned business survey questionnaires have a consistent look, structure and content. The combined results produce more coherent and accurate statistics on the economy. The unified approach makes reporting easier for firms operating in different industries because they can provide similar information for each branch operation. This way they avoid having to respond to questionnaires that differ for each industry in terms of format, wording and even concepts. Each year, Statistics Canada integrates more existing surveys into the UES program.

1.1 Data source

Responding to this survey is mandatory. Data are collected directly from survey respondents and extracted from administrative files.

In addition to the mail-out/mail-back questionnaire approach, the survey was also conducted using Computer-Assisted Telephone Interviews (CATI) for data collection, capture, edit and follow-up.

1.2 Instrument design

The questionnaire was designed for the first time for the 1997 survey and thoroughly reviewed for the 1999 survey. Its main users and respondents were consulted. Since then, minor changes are made when necessary as part of an ongoing improvement process.

The questionnaire satisfies the statistical requirements of national accounts in financial information, departments of transport and financial information and operation businesses and associations.

2.0 Concepts and definitions

2.1 Concepts

It is impossible to collect, aggregate and analyze data with a direct link to the infinite range of business structures that exist. This is why Statistics Canada developed a statistical model in which each business, from multinational conglomerates to corner stores, can be evenly represented.

The statistical entity used in Unified Enterprise Surveys (UES) is the establishment, which represents the smallest group of production entities that produce a set of homogeneous goods and/or services and whose activities do not go beyond provincial borders. One of the main advantages of using the establishment entity is that we can collect relatively detailed data at the provincial level.

The establishment is the level at which the accounting data required to measure production are available (principal inputs, revenues, salaries and wages). The establishment, as a statistical unit, is defined as the most homogeneous unit of production for which the business maintains accounting records from which it is possible to assemble all the data elements required to compile the full structure of the gross value of production (total sales or shipments, and inventories), the cost of materials and services, and labour and capital used in production.

The enterprise is associated with a complete set of financial statements. The enterprise, as a statistical unit, is defined as the organizational unit of a business that directs and controls the allocation of resources relating to its domestic operations, and for which consolidated financial and balance sheet accounts are maintained from which international transactions, an international investment position and a consolidated financial position for the unit can be derived. It corresponds to the institutional unit as defined for the System of National Accounts.

The population of interest

The population of interest is all establishments classified to NAICS 492. This industry group is further split into two groups:

- **4921 – Couriers:** This group consists of establishments primarily engaged in providing air, surface or combined courier delivery services. Courier establishments of the Post Office are included.

- **4922 – Local Messengers and Local Delivery:** This industry group comprises establishments primarily engaged in providing messenger and delivery services of small parcels within a single urban area. Establishments engaged in the delivery of letters and documents, such as legal documents, often by bicycle or on foot; and the delivery of small parcels, such as take-out restaurant meals, alcoholic beverages and groceries, on a fee basis, usually by small truck or van, are included.

2.2 Definitions

Financial variables

Revenue

- Revenue from sales of goods and services are generated from delivery services and from the sales of other goods and services like cargo services and custom brokerage.

- Other operating revenue includes notably franchise fees and repair and maintenance revenue.

- Total operating revenue is the sum of all operating revenue.

- Non-operating revenue comprises income from interest and dividends.

- Total revenue is the sum of operating and non-operating revenue.

Expenses

- Salaries, wages and benefits refer first to salary and wages payments, including notably vacation pay and commissions, for all employees for whom a T4 Supplementary Form is completed. This category also includes the employer portion of employee benefits for items such as Canada Pension Plan contributions or Employment Insurance premiums.

- Cost of energy and supplies includes both 1) expenses for purchasing fuel for vehicles and airplanes (e.g. gas, diesel fuel, propane, natural gas, fuel for jet airplanes, etc.), 2) other energy costs, such as electricity, natural gas and other energy types, and 3) supply expenses, including office and other operating supplies.

- Rental and leasing expenses are those costs incurred to rent or lease office space, motor vehicles, computers or any other machinery and equipment.

- Repair and maintenance expenses are payments made to purchase maintenance and repair services for buildings, motor vehicles or any other machinery and equipment.

- Property and business taxes include all types of property and business taxes, as well as the different operating permits. Provincial health and education payroll taxes are excluded from this category.

- Other purchased services includes items such as payments to owner-operators, goods transportation, telephone and other telecommunications costs, insurance premiums, advertising and sales promotion.

- Depreciation charges are charges related to depreciation and amortization of buildings, vehicles and other machinery and equipment.

- Other operating expenses includes items such as royalties and franchise fees, bad debts and inventory adjustments. Provincial health and education payroll taxes are included in this category.

- Total operating expenses is the sum of all operating expenses.

- Non-operating expenses relates to interest expenses on loans or the interest component of a capital lease.

- Total expenses is the sum of operating and non-operating expenses.

Net operating revenue

- Operating margin is the difference between operating revenue and operating expenses.
- Operating ratio is the ratio of operating expenses over operating revenue.

In order to specify the expense categories, Table A shows the cells of the questionnaire used to derive its exact value.

Table A – Expense item mapping

Expense items	Questionnaire cell(s)
Salaries, wages and benefits	C3041
Cost of energy and supplies	C4069, C3399, C4066, C4101
Rental and leasing expenses	C4120, C4125, C4130, C4140
Repair and maintenance expenses	C4180, C4210, C4220
Property and business taxes	C4410
Other purchased services	C3080, C3088, C4230, C4315, C4070, C4085, C4325, C4350, C4365, C4370
Depreciation expenses	C4520
Other operating expenses	C4555, C4564, C4569
Total operating expenses	C4599
Non-operating expenses	C4630
Total expenses	C4699

Other variables

Pieces are equivalent to envelopes, boxes, parcels or packages. Pieces carried by courier and local messenger companies generally weigh less than 100 kg.

A shipment is the movement of one or more pieces from a pick-up location or origin to a delivery location or destination.

The origin is classified by region in Canada.

The destination is classified as Canada, United States or other countries.

Delivery services can be broken down into three sub-categories:

Same-day services refer to shipments delivered the same day they are picked up;

Next-day/overnight services refer to shipments delivered one day after pick-up;

Second-day/other services refer to shipments delivered two days or more after pick-up.

The average revenue per piece is the revenue generated from delivery services divided by the number of pieces carried.

3.0 Methods

The data were produced as part of Statistics Canada's Unified Enterprise Survey (UES) program.

3.1 Sampling

Target population

The target population for this survey is all establishments classified to NAICS 492 and operating for at least one day during the reference year 2004.

Frame

The frame is the list of establishments from which the portion eligible for sampling is determined and the sample is taken. The frame provides basic information about each firm, including address, industry classification and information from administrative data sources. The frame is maintained by Statistics Canada's Business Register Division and is updated using administrative data.

On the Business Register, under NAICS code 492, there were 6,904 establishments of simple and complex enterprises having operated for at least one day during the reference year 2005. Of these, 3,370 establishments were classified under NAICS code 4921 (courier) and 3,534 were under NAICS code 4922 (local delivery).

In addition, a census of unincorporated establishments (T1) from individual income tax declarations provided by the Canada Revenue Agency was used to ensure that independent contractors (self-employed workers) were included since they can easily be left out of the Business Register's coverage due to their small size. In 2005, there were 14,089 unincorporated establishments (T1) that declared income under NAICS code 492 (courier and local delivery).

Sampling plan

Two sources of data were used to derive the estimates:

1) a probability sample survey of courier and local messenger establishments with an annual gross business revenue above survey thresholds;

2) taxation data assembled from samples of T1 slips of unincorporated enterprises and T2 slips of incorporated companies provided by the Canada Revenue Agency to estimate for: 1) a group of establishments with annual gross business revenue above survey thresholds (tax replacement program[1]), and 2) all establishments with an annual revenue below survey thresholds.

It should be noted that only financial information is obtained from taxation data; e.g. revenue and expenses such as depreciation and salaries, wages and benefits. So-called "characteristic" data, such as equipment or the origin and destination of deliveries, of the units are imputed while considering their own characteristics (province, industry type, revenue, etc.).

In total for the Couriers and Local Messengers Industry, 1,995 establishments on the Business Register had annual revenue above survey thresholds in 2005.

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[1] The purpose of the tax replacement program is to replace part of the sample with taxation data in order to reduce the response burden for respondents. In 2005, it corresponded to 55% of the simple and single businesses.

Sampling unit

The sampling unit used in the probability survey is the establishments of one enterprise that operate in the same industry and the same province. The sampling unit can be called a “cluster of establishments”.

Sampling rate

Of the total of 1,995 establishments above survey thresholds, 644 establishments were selected in the sample. The overall sampling rate was at 32%.

3.2 Data collection

Questionnaires were mailed at the beginning of the year 2005 (January) to establishments selected in the sample. Establishments having received a questionnaire were asked to report information for their most recent 12-month fiscal period. The collection period ended in September 2006.

3.3 Data processing

Response rate

The overall response rate, which combines survey data and taxation data, was 83% for the industry. This rate was 90% for couriers (NAICS 4921) and 74% for local messenger services (NAICS 4922).

Imputation

Reported data were examined for completeness and inconsistencies using automated edits coupled with analytical review. Another automated system was used to impute data for refusals, no response and unable to contact, partially with the assistance of taxation data.

This imputation process was also coupled with a manual analytical review. With the use of taxation data, the quality of the data coming out of the imputation process is judged to be very good for the aggregate variables, such as total revenue and total expenses, and to be good for more detailed variables (see Table B).

Table B: Weighted imputation rate (in percentage)

Variables	492	492110	492210
Total revenue	7.5	5.3	8.1
Total expense	7.3	5.6	7.8
Salaries, wages and benefits	9.5	5.5	10.5

Allocation

In a number of cases, respondents reported results that combined sampling units from more than one province, which created the need for data allocation by province. Auxiliary information, stemming mainly from the T4 Supplementary Form, was used to allocate the data reported on the combined report among the various provinces where the enterprise was in operation. This source of information used for allocation purposes provides an adequate distribution of revenue and expenses by province and territory.

3.4 Estimation

The sampling weights derived from the sample survey design were modified and improved using updated information. This was possible because, during the passage of time since the sample was selected, the Business Register was updated further with more complete information. The final set of weights reflects as closely as possible the changing characteristics of the population in this industry. The final estimates were derived by combining the survey estimates and the taxation data estimates.

4.0 Data quality

All surveys are subject to sampling and non-sampling errors. Statistics Canada uses a variety of methods to minimize all types of errors. Efforts were taken to minimize the non-sampling errors of omission, duplication, reporting and processing.

4.1 Quality evaluation

Prior to dissemination, combined survey results are analyzed for comparability; in general, this includes a detailed review of individual responses (especially for the largest companies), general economic conditions, historic trends, and comparisons with other data sources.

Coefficients of variation

Coefficients of variation (CV) of the final estimates were computed. The quality of the estimates is classified as follows:

- Excellent — CV is 0.01% to 4.99%
- Very good — CV is 5.00% to 9.99%
- Good — CV is 10.00% to 14.99%
- Acceptable — CV is 15.00% to 24.99%
- Use with caution — CV is 25.00% to 34.99%
- Unreliable — CV is larger than 35.00%
- "." — Missing value

Table C: Data Quality (CV)

	492	492110	492210
N.L.	Excellent	Excellent	Excellent
P.E.I.	Census	Census	Census
N.S.	Excellent	Excellent	Very good
N.B.	Excellent	Census	Acceptable
Que.	Excellent	Census	Very good
Ont.	Excellent	Excellent	Very good
Man.	Excellent	Excellent	Very good
Sask.	Excellent	Excellent	Excellent
Alta.	Excellent	Excellent	Good
B.C.	Excellent	Excellent	Acceptable
Y.T.	Census	Census	.
N.W.T.	Census	Census	.
Nvt.	Census	Census	.
Canada	**Excellent**	**Excellent**	**Very good**

Based on these ratings and as depicted in **Table C** above, total revenue estimates for the overall industry (NAICS 492) are judged to be excellent at the national, provincial and territorial levels for

2005. For Couriers (NAICS 4921) the estimates were judged to be excellent at all levels. For Local Messengers (NAICS 4922), the quality of the estimates was judged to be very good at the national level and from excellent to acceptable at the provincial and territorial levels.

Overall, the 2005 preliminary estimates are viewed as providing an accurate and reliable portrait of the Couriers and Local Messengers industry in Canada.

4.2 Disclosure control

Statistics Canada is prohibited by law from releasing any data which would divulge information obtained under the *Statistics Act* that relates to any identifiable person, business or organization without the prior knowledge or the consent in writing of that person, business or organization. Various confidentiality rules are applied to all data that are released or published to prevent the publication or disclosure of any information deemed confidential. If necessary, data are suppressed to prevent direct or residual disclosure of identifiable data.

5.0 Data release

Data are released from two sources:

1) CANSIM, tables 402-0001 to 402-0003.

2) Service Bulletin: Surface and Maritime Transport (50-002-XIE)

6.0 Statistical updates and corrections

Conceptual and methodological changes were made at the beginning of the reference year 2004 to improve the quality of the estimates:

- Corrections were made following our process to validate data with key survey respondents (large businesses) and had a significant effect on the revenues and expenses of the Courier segment.

- The definitions of the industry segments were updated. As a result, the establishments belonging to incorporated enterprises are now classified under the Courier segment, while all owner-operator (or unincorporated enterprise) establishments are found under Local Messenger Services.

- Coverage of the unincorporated survey units (T1) with revenues below survey thresholds was perfected following the introduction of a new methodology developed to optimize use of taxation data. One of its advantages is that it provides better coverage of small establishments.

- A revision of the mapping process for survey and taxation variables were made, which affected the relative importance of some expense categories to a certain extent.

Although all these changes contribute to the overall survey quality and are part of normal practice aimed at continuously improving our practices, we are aware of their impact on the historical data and we regret any inconvenience this may cause our users.