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PRASC

Project for the Regional Advancement of Statistics in the Caribbean

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Projet régional pour l'avancement de la statistique dans les Caraïbes

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Project for the Regional Advancement of Statistics in the Caribbean

PRASC

Component: Business Survey Infrastructure

Funded by the Government of Canada

Questionnaire Design

Moreno Da Pont

Assistant Director, Enterprise Statistics Division

January 21, 2016
Port of Spain, Trinidad and Tobago

Overview of presentation

- Implementing standards
- Considerations for questionnaire design
- Statistics Canada's process for designing surveys
- Best practices

Implementing Standards

- Standards for business surveys
  - Industry classification (ISIC)
  - Commodity classification (CPC)
  - Other statistical standards (revenues and expenses, client type, international trade, etc.)
- Applying standards across business survey programs will facilitate coherence and simplify integrating data into the System of National Accounts

Selecting a collection method

Collection Method	Key advantage(s)	Key disadvantage(s)
Electronic Questionnaire	Online edits and validation, electronic data output	Accessibility for respondents, security, confidentiality, infrastructure costs
Paper questionnaire	Accessibility (drop off, mail out, fax)	Slower response, reduced options for auto-editing, auto-coding, data must be captured
CATI	Good option for follow up (non-response, failed edit); can provide guidance to respondent	Require experienced interviewers, more costly
CAPI	Same as CATI, easier to address concerns face to face	Requires extremely well trained interviewers, more costly, very time consuming
Customized reporting arrangement	Reduction of response burden	Data may not be adhere to concepts, capture costs

Effective collection instrument

- Collect measurable data from the target population
  - Identify key output requirements before designing a collection instrument
  - Apply well defined concepts presented in logical sequence
  - Question wording adapted to target population
  - Questionnaire format understood by wide audience
  - Collection method adapted to respondent reality
  - Targeted content for sub-population (industry specific modular questionnaire, clear navigational path, e.g., branching)
  - Objective: Reduce respondent burden

Visual effect

- Questionnaire should be attractive and easy to complete (cover page makes an impact)
- Distinguishing titles/headings of modules
- Use colour, shading, illustration and symbols to attract attention and guide respondent; darker background for questions, lighter background for answers
- Font size is important, avoid small print, highlight (bold) key words and totals
- Avoid visual clutter
- Visual navigational guide, question numbers can be helpful
- Visually enhanced question groupings
- Avoid page break for parts of a sum (if possible)

Modular design for business survey questionnaires

- Key features: Standardized + Customizable

- Standardized modular content
  - Common content (e.g., revenues and expenses, sales by type of clients, sales by client location, etc)
  - Industry specific content (i.e. sales by commodity/services)

- Customizable questionnaires
  - According to data requirements by industry/industry group
  - According to availability of administrative data ('planned replacement' strategy) if applicable

- Defined relationships between modules for E&I

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Design characteristics

- Descriptive questions (with industry specific instructions) are favoured over keyword(s) in tabular design

- Each question meets a specific data need (superfluous content creates burden)

- Minimize write-in to a single 'other – specify' by module

- Visual highlight of totals (with instructions about what it sums)

- Reporting guide supplements questionnaires

Overview of StatCan questionnaire review and approval process

- Identify/justify data requirements

- Streamline survey requirements – reduce response burden by distinguishing must-have from nice-to-have

- Identify sources of administrative data (for replacement)

- Questionnaire content approved by a senior committee

- Questionnaire Design Resource Center responsible for field testing content and making recommendations

- Chief statistician sign off required

Generic survey modules

- Standard cover page: Contact information, response timeframe, mail back instructions

- Introduction: Survey purpose, security, confidentiality, data sharing

- Business status and main business activity validation

- Reporting instructions

- Reporting period and factors affecting your business

- Revenue module

- Expenses module

- Net profit/loss module

- Industry characteristics modules: i.e. sales, cost of goods sold

- Contact person (respondent) and comments

  Example: 2014 Annual Survey of Service Industries: Traveller Accommodation - Long Questionnaire (PDF Version, 387.40kb)

IBSP industry specific modules (con't)

- **Modular content - industry characteristics (optional)**
  - Sales
  - Sales of goods manufactured (commodity detail)
  - Sales by type of customer (%)
  - Sales by consumer location (%)
  - Distribution of revenue by method of sales (%)
  - Purchased services
  - Purchase of raw materials and components (manufacturing process)
  - Cost of goods sold
  - Inventories
  - Wholesale origin and destination of goods sold (WODGS)
  - Capital expenditures
  - Assets
  - Personnel/Labour, salaries, wages
  - Provincial/territorial distributions (key variables)
  - Location based supplement

Generic questionnaire introduction

This information is collected under the authority of the *Statistics Act*, Revised Statutes of Canada, 1985, Chapter S-19. COMPLETION OF THIS QUESTIONNAIRE IS A LEGAL REQUIREMENT UNDER THIS ACT.

Introduction

Survey purpose

This survey collects the financial and operating data needed to develop national and regional economic policies and programs. Your information may also be used by Statistics Canada for other statistical and research purposes. Please access **www.statcan.gc.ca/survey-enquete/index-eng.htm** for more information on this survey.

Security of emails and faxes

Statistics Canada advises you that there could be a risk of disclosure during facsimile or email. However, upon receipt, Statistics Canada will provide the guaranteed level of protection afforded all information collected under the authority of the *Statistics Act*. **Note:** Our online questionnaires are secure, there is no risk of data interception when responding to Statistics Canada's online surveys.

Confidentiality

The *Statistics Act* protects the confidentiality of information collected by Statistics Canada.

Data-sharing agreements

To reduce respondent burden, Statistics Canada has entered into data-sharing agreements with provincial and territorial statistical agencies and other government organizations, which have agreed to keep the data confidential and use them only for statistical purposes.

Information on confidentiality, data-sharing agreements and record linkages can be found on the last page of this questionnaire.

Please return the questionnaire within 21 days.

Please mail the completed questionnaire in the enclosed envelope or fax it to Statistics Canada at **1-888-883-7999.**

If you are unable to complete within 21 days **OR** if you need help, call us at **1-800-858-7921.**

Statistics Canada
Operations and Integration Division
150 Tunney's Pasture Driveway
Ottawa, Ontario K1A 0T6
Visit our website, www.statcan.gc.ca

Business status module

Business status

1. Is this business currently in operation?

   B00309

   ○ Yes ▶ **Go to next Section**

   ○ No, seasonal operations ▶ **Go to question 2**

   ○ No, ceased all operations ▶ **Go to question 4**

   ○ No, sold all operations ▶ **Go to question 6**

   ○ No, amalgamated with (an) other business(es) ▶ **Go to question 8**

   ○ No, temporarily inactive but will re-open ▶ **Go to question 11**

   ○ No, no longer operating due to other reason(s) ▶ **Go to question 14**

2. When did this business close for the season?

	YYYY	MM	DD
B00217 Date			

IBSP main business activity

Features:
- Preprinted based on business register information
- Confirmation – Radio button
- Correction (if applicable)
  - Date of change
  - Description and revenue percentage of main activity
  - Description and revenue percentage of secondary activity

Used as input to maintaining the business register

IBSP revenue module

Revenue

Notes:
- A detailed breakdown may be requested in other sections.
- These questions are asked of many different industries. Some questions may not apply to this business.
- Refer to the reporting guide for detailed instructions.
- Please report all amounts in **thousands of Canadian dollars**.

What was this business's revenue from each of the following sources? CAN$ '000

1. Sales of goods and services
   Include: sales, commissions, rental and leasing revenue if they are this business's primary revenue source . . . . $ _____ ,000 F43008

2. Rental and leasing
   (report only if this is a secondary source of revenue; if rental and leasing are your primary revenue source, report in question 1) . . . . $ _____ ,000 F45801

3. Commissions
   (report only if this is a secondary source of revenue; if commissions are your primary revenue source, report in question 1) . . . . $ _____ ,000 F45701

4. Subsidies
   Include: grants, donations, fundraising and sponsorships . . . . $ _____ ,000 F47101

5. Royalties, rights, licensing and franchise fees . . . . $ _____ ,000 F47201

6. Dividends . . . . $ _____ ,000 F51101

7. Interest . . . . $ _____ ,000 F51201

8. Other revenue — please specify:
   Include: intracompany transfers
   F51302 _____ $ _____ ,000 F51301

9. **Total revenue**
   (sum of questions 1 to 8) . . . . $ _____ ,000 F40000

INFORMATION COPY DO NOT USE TO REPORT

Features:
- Notes: General instructions
- Industry specific instructions (sales)
- Reporting in thousands
- Single 'other specify'
- Highlighted total with instructions on what it sums
- Industry specific sales variables are in a distinct module, not within the generic revenue module

Industry specific sales module

Industry characteristics

Sales

What were this business's sales for each of the following goods and services?
Please report all amounts in **thousands of Canadian dollars**.

CAN$ '000

1. Room or unit accommodation for travellers .... $ _____ ,000

    F45007

2. Meals and non-alcoholic beverages, prepared and served or dispensed for immediate consumption .... $ _____ ,000

    F43176

3. Alcoholic beverages, prepared and served or dispensed for immediate consumption .... $ _____ ,000

    F43177

4. Sale of merchandise
   (e.g., packaged food and beverages, newspapers, magazines, books, tobacco, cigarettes and souvenirs) .... $ _____ ,000

    F43178

5. Telephone and Internet access services .... $ _____ ,000

    F45008

6. Rental of space and equipment
   (e.g., meeting room rentals, banquet rentals, concessions) .... $ _____ ,000

    F45805

7. Amusement and recreational services
   (e.g., golf course, skiing, admissions to live performing arts events) .... $ _____ ,000

    F45009

8. Other services
   (e.g., parking, laundry) .... $ _____ ,000

    F45011

9. Other revenue not elsewhere reported — please specify:

    F43175   F43005

    _____ $ _____ ,000

10. **Total sales of goods and services**
    (sum of questions 1 to 9) .... $ _____ ,000

    F43000

Example:
Annual Survey of Service Industries:
Traveller Accommodation

IBSP expense module

Example:
Annual Wholesale Trade Survey

Features:
• Visual support and instructions to calculate COGS value
• Industry specific inclusion and exclusion instructions

IBSP expense module (con't)

Example:
Annual Wholesale Trade Survey

Features:
- Single 'other write-in'
- Highlighted field for total with instruction on sum of parts

Generic sales by type of client module

Sales by type of client

What was this business's breakdown of sales by the following types of client?

			Percentage
1.	**Clients in Canada**		
	a.	individuals and households	F43008_c1 ___ %
	b.	businesses	F43008_c2 ___ %
	c.	governments, not-for-profit organizations and public institutions (e.g., hospitals and schools)	F43008_c3 ___ %
2.	**Clients outside of Canada**		F43008_o4 ___ %
			100%

<u>Example:</u>
Annual Survey of Service Industries: Traveller Accommodation

Generic sales by consumer location

Sales by consumer location

Please provide the percentage breakdown of this business's sales by **consumer location** (the consumer location is where the goods or services will ultimately be used).

Acceptable substitutes:
- shipping destination
- client's billing address
- location of this business's retail customers
- location of this business's warehouses/distribution centres.

	Percentage
1. Newfoundland and Labrador	F43008_g1 ___ %
2. Prince Edward Island	F43008_g2 ___ %
3. Nova Scotia	F43008_g3 ___ %
4. New Brunswick	F43008_g4 ___ %

Feature:
- Option to collect as a percentage to reduce response burden; conversion in dollars in post collection processing.

Assets details

3. Please provide a breakdown by asset code for the following: *(Please refer to guide for codes)*

Asset Code	New Assets including financial leases (include used fixed assets if imported)	Purchase of Used Canadian Assets	Renovation Retrofit Refurbishing Overhauling Restoration	Total Capital Expenditures (sum of columns 2, 3 and 4)	Expected Useful Life of Assets in Column 2
MACHINERY AND EQUIPMENT INCLUDE ACQUISITIONS TO WORK IN PROGRESS					
Columns (1)	(2)	(3)	(4)	(5)	(6)
Codes 6001 - 9599	('000 CAN$)				Years
a)	,000	,000	,000	,000	
b)	,000	,000	,000	,000	
c)	,000	,000	,000	,000	
d)	,000	,000	,000	,000	
e)	,000	,000	,000	,000	

Features:

• If the data requirements call for the reporting of detailed list of assets (vary from one respondent to the next), this format could be used: list of asset code must be provided to eliminate write-ins and the need for post capture coding.

Example: **Annual Capital and Repair Expenditures Survey, Actual for 2014**

Best practices

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Questionnaire design and non-response

- Reduce burden by excluding content that can be derived

- Create shorter industry specific questionnaires

- Provide visual incentives to respond to the most important variables (i.e. totals)

- Favor layman terminology

- Provide clear and easily accessible instructions

- Design clear and easy flow (skip patterns)

- Facilitate response with percentages (if appl.)

- Facilitate response radio buttons and checkboxes (if applicable)

Questionnaire design, coding, data validation and editing

- Collect and promote reporting of totals (at minimum) – Anchor E&I strategy

- Promote auto-coding with easy to use code sets in lieu of write-ins if distinct cells are not specified

- Support of auto-editing by respondent
  - Identify equivalencies
  - Identify parts contributing to totals
  - Define formula to calculate a required value
  - Add 100% when collecting in percentage

Questionnaire design and post collection processing

- Modular content supports a reduction/reuse of post collection processing specifications - validation, editing, deterministic imputation, summing, prorating
- Data from various form types can be loaded on distinct/shorter record layouts (survey processing entities) by industry/industry group
  - Records with similar characteristics (industry, geography) can be grouped for processing (imputation classes)
  - Industry specific strategies provide better results for outlier identification/exclusion, trend, ratio and donor imputation

Questionnaire design and data analysis

- Harmonized concepts (variable naming convention, classifications) supports data comparability
- Well defined and understood concepts (question wording) ensures data consistency and interpretability

Useful documentation

Statistics Canada – Questionnaire Design

http://www.statcan.gc.ca/pub/12-539-x/2009001/design-conception-eng.htm

Statistics Canada – Response and non response

http://www.statcan.gc.ca/pub/12-539-x/2009001/response-reponse-eng.htm

Statistics Canada – Survey Steps

http://www.statcan.gc.ca/pub/12-539-x/2009001/steps-etapes-eng.htm

Statistics Canada – Survey Methods and Practice (Catalogue no. 12-587-X)

http://www.statcan.gc.ca/pub/12-587-x/12-587-x2003001-eng.pdf

Statistics Canada – Data Quality Guidelines

Statistics Canada Quality Guidelines, Fifth edition (PDF version, 488 kb)

OECD - Good Practices in Survey Design Step-by-Step

http://dx.doi.org/10.1787/9789264167179-6-en

List of STC questionnaires by subject

http://www23.statcan.gc.ca/imdb-bmdi/pub/indexti-eng.htm?MM

You can contact the PRASC team at:

prasc@statcan.gc.ca

or

statcan.prasc-prasc.statcan@canada.ca