MEASURING THE CONSULTING SERVICES INDUSTRY IN CANADA

(A working paper for the 21st Voorburg Group Meeting on Service Statistics, Management Consultancy Session, Wiesbaden, Germany, October 2006)

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Abstract: Statistics Canada's business statistics program underwent a major re-engineering in the mid 90s, prompted by new requirements to significantly improve and expand provincial economic accounts to support new administrative procedures in the context of the harmonization of provincial sales taxes with the federal goods and services tax in Canada. The initiative had a major impact on how industry statistics are collected and produced annually. Statistics on the Consulting services industries are compiled according to this integrated survey model known at Statistics Canada as the Unified Enterprise Statistics (UES) program.

One of the greatest challenges associated with producing good estimates for the consulting services industry in Canada is maintaining an accurate frame of businesses. Misclassification of consulting services businesses occurs at a relatively high rate and as a result additional frame maintenance processes are required. Some of these processes are outlined in this paper.

Questionnaires were redesigned in recent years to adopt a new modular approach.

Keywords: Consulting services industry, establishment surveys, North American Industry Classification (NAICS), North American Product Classification (NAPCS), Unified enterprise survey (UES), Charter of accounts (COA), sampling, administrative data, modular questionnaire design.

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Introduction

This paper is a contribution to the Voorburg Group of experts' meetings on the development of a framework for producing better and more comparable statistics on the Services sector. In preparing the paper, the author followed guidelines issued by the working group responsible for organizing the Voorburg Group's meeting in Wiesbaden, Germany, in October 2006.

The paper summarizes how output (and input) statistics are produced in Canada for the Management, Scientific and Technical Consulting industry and highlights some issues Statistics Canada faces in this area. The information was gathered from various sources and internal documents at Statistics Canada, and in particular from the industry report that is produced by staff of the Business Services Section, Service Industries Division, for the release of the Consulting industry data. The author wishes to acknowledge and thank Luc Provençal, Moreno Da Pont, and Matt Briggs for their contribution and invaluable assistance in putting the paper together.

1. Definition of Service being Collected

Statistics Canada's principal program for measuring output in the Management consultancy industry is the **Annual Survey of Management, Scientific, and Technical Consulting** (hereafter referred to as the consulting services survey). It is part of Statistics Canada's much broader **Unified Enterprise Survey (UES)**, a family of annual business surveys spanning over a wide range of industries that were redesigned in the past years to adhere to a common and integrated conceptual, methodological and operational survey framework (more details in Section 7). This particular statistical program is one of over thirty annual surveys that Statistics Canada conducts to service industries, and targets firms that provide a broad range of consulting services.

The North American Industry Classification System (NAICS)² defines these services as comprising three distinct five-digit NAICS industries, namely:

- Management consulting services (54161);
- Environmental consulting services (54162) and
- Other scientific and technical consulting services (54169).

The annual program encompasses these three industries. However, it should be noted that there are several other types of consulting services, most notably information technology consulting services, which are not covered by this industry and are rather included with other industries (NAICS) and therefore covered by another survey program.

This industry is divided into three NAICS subgroups³: **54161 - Management Consulting Services.** These business units provide advice and

² Concordance tables exist between the North American Industry Classification System Canada 2002 (NAICS Canada) and revision 3.1 of the International Standard Industrial Classification of all Economic Activities (ISIC Rev. 3.1), and with the Statistical Classification of Economic Activities in the European Community (NACE), Revision 1.1.

³ Information extracted from Statistics Canada's internal website on standard classification.

assistance to other organizations on management issues, such as strategic and organizational planning, financial planning and budgeting, marketing objectives and policies, human resource policies, practices and planning, and production scheduling and control planning. Management consulting is further divided into three categories:

541611 - Administrative Management and General Management Consulting Services. Administrative management consultants provide advice and assistance on administrative issues such as financial planning and budgeting, equity and asset management, records management, office planning, strategic and organizational planning, site selection, new business start-up, and business process improvement. General management consultants provide a full range of consulting services, which may include administrative, human resources, marketing, process, physical distribution and logistics, or other management consulting services.

Exclusions: business units providing office or general administrative services on a day-to-day basis. Mutual fund managers, investment brokers.

541612 - Human Resource and Executive Search Consulting Services. Human resources consultants provide actuarial, benefit and compensation consulting services, employee assessment consulting services, organization development consulting services and personnel management consulting services. Executive search consultants provide selection and referral of executive personnel for employment by others.

Exclusions: professional and management development training.

541619 - Other Management Consulting Services. This category includes all management consulting specialities not covered above, such as freight rate consultants, physical distribution consultants, logistics management consultants, tariff consultants, operations research consultants, telecommunication management consultants and all other management consultants.

Exclusions: health and fitness consultants, personal trainers, property management companies.

Environmental Consulting Services (54162) provide advice and assistance to other organizations on environmental issues, such as the control of environmental contamination from pollutants, toxic substances and hazardous materials.

Other Scientific and Technical Consulting Services (54169) provide advice and assistance to other organizations on scientific and technical issues. These services include agricultural consultants, biological consultants, chemical consultants, geological consultants and economic consultants.

The target population for the survey consists of all **establishments**⁴ (sometimes referred to as firms or units) classified as providers of consulting services according to the North American Industry Classification System (NAICS) at the time of extracting the survey universe file from the business register. In effect, those in scope establishments would be the one coded to the appropriate sub-set of NAICS on Statistics Canada's business register.

The latest available annual data for that industry was released in March 2006 for reference year 2004.

2. Unit of measure collected

The information required (or derived from administrative data files) for this statistical program is reported in "number or counts", percentages, or Canadian dollars. While margins are not requested per se on the collection instrument, margins are derived internally from other reported data and disseminated from the program. An example is operating margins.

3. Market conditions and constraints

The management, scientific, and technical consulting services industry generated \$8.8 billion (current \$) in operating revenues in 2004. With total operating expenses of \$ 7.0 billion in 2004, the industry's operating profit margin reached 20.0% in 2004. The industry is labour intensive with salaries, wages, and benefits constituting the primary operating expenditure and accounting for 43% of operating expenditures. Not surprisingly, the industry is also highly geographically concentrated with approximately half of the industry's operating revenues generated by firms located in the largest province of Ontario (49%), followed by Quebec (17%), Alberta (17%) and British Columbia (12%). The largest 20 firms of the industry account for only 14% of industry operating revenue. However, these large firms reported an increase of 5.2% in operating revenue over 2003 and their profit margin grew to 14.8% from 10.5% the previous year.

The majority of revenues (78%) were earned by businesses specializing in management consulting services. Businesses that primarily provided scientific and technical consulting services earned 15% of industry revenues, while those that provided mainly environmental consulting services accounted for the remaining 7%.

At 20.0%, the operating profit margin in 2004 is large when compared to other industries. This can be explained by the fact that there are significantly more unincorporated firms in the Consulting Services industry than in other industries. In the case of **unincorporated firms**, the labour input of the owner or proprietor does not usually show up as a salary or wage expense. Instead, owners take their earnings from firm profits. Thus, it is normal to find that operating profit margins for unincorporated firms (54.3% in 2004) are higher on average than those of incorporated firms (13.5% in 2004), especially in human resource

⁴ An active **statistical establishment** is one production entity or the smallest grouping of production entities which produces as homogenous a set of goods and/or services as possible, which does not cross provincial boundaries, and for which records provide data on the value of output together with the cost of principal intermediate inputs used and cost and quantity of labour resources used to produce the output.

intensive industries. In 2004, 30% of the firms of this industry were unincorporated, yet they generated as little as 16% of its total operating revenue and as much as 43% of its total operating profit. Incorporated businesses in this industry recorded an operating profit margin of 13.5% in 2004, up from just over 9.2% in 2003.

| | Management, Sc | ientific and | d Technical (| Consulting service | es - Refere | nce year 2004 | | |
|--------|----------------|---------------------------|---------------|--------------------|---------------------------|----------------|---------------------------|--|
| | Survey | y portion of | nly | Tax replace | ement | All | | |
| NAICS | Establishments | Total revenue | Employees | Establishments | Total revenue | Establishments | Total revenue | |
| Code | Number | Millions of dollars | Number | Number | Millions of dollars | Number | Millions of dollars | |
| 5416 | 20,693 | 6,803 | 43,642 | 40,604 | 2,279 | 61,297 | 9,082 | |
| 54161 | 15,729 | 5,234 | 29,792 | 33,433 | 1,897 | 49,162 | 7,131 | |
| 541611 | 10,888 | 2,863 | 14,959 | 26,365 | 1,534 | 37,253 | 4,397 | |
| 541612 | 1,665 | 1,464 | 10,132 | 2,044 | 107 | 3,709 | 1,571 | |
| 541619 | 3,176 | 907 | 4,701 | 5,024 | 256 | 8,200 | 1,163 | |
| 54162 | 1,210 | 599 | 6,189 | 1,131 | 55 | 2,341 | 654 | |
| 54169 | 3,754 | 970 | 7,661 | 6,040 | 327 | 9,794 | 1,297 | |

| Table 1. | Management, | Scientific, an | d Technical | Consulting | Services | in Canada: | 2004 |
|----------|-------------|----------------|-------------|------------|----------|------------|------|
|----------|-------------|----------------|-------------|------------|----------|------------|------|

TABLE ON RELATIVE IMPORTANCE OF CONULTING SERVICES INDUSTRY IN ECONOMY(GDP) / SERVICE ECONOMY

4. Standard classification structure and product details

The data is collected and compiled based on the **industry** concept as pointed out in Section 1, and follows the **NAICS**. The term "industry" refers to a generally homogeneous group of economic producing units, primarily engaged in a specific set of activities. An activity is a particular method of combining goods and services inputs, labour and capital to produce one or more goods and/or services (products). In most cases, the activities that define an industry are homogeneous with respect to the production processes used.

The survey is conducted primarily at the **establishment** level. 'Establishment' refers to the level at which the accounting data required to measure production is available (principal inputs, revenues, salaries and wages).

As is the case for most business surveys conducted by Statistics Canada, the survey content is aligned as closely as possible with common accounting principles and book keeping methods and terminology in use in North America (Generally Accepted Accounting Principles - GAAP). Therefore, information on both outputs and inputs is derived from businesses' reported revenues and expenses as per the standard income statement (the equivalent information can also be found on tax data files for major data items but not necessarily with the same level of details).

The level of revenue and expense details on the survey is arrived at by carefully assessing and balancing the need for meeting data requirements from users (where the System of National Accounts and in particular the input-output tables play a key role) with the need to manage response burden. Emerging phenomenon such as the rapid growth in international trade in services has influenced content development as the program strives to improve the quality of data used to tabulate Canadian Balance of payments.

In recent years, Statistics Canada in partnership with its American and Mexican counter parts developed the **North American Products Classification System (NAPCS)**. This new commodity classification has reached a state where it can be implemented in the different survey programs. In the last few years, as surveys were being redeveloped, an effort was made to align to the known preliminary NAPCS details at the time (and more so on the output side). With the recent completion of the NAPCS development work, much more will be done in the coming years with respect to reviewing and adapting the survey content to align more closely to the new NAPCS details in its final form. Statistics Canada launched earlier in 2006 a corporately funded initiative to facilitate the widespread implementation of NAPCS to the annual business survey programs and in the economic accounts.

Statistics Canada's Service Industries Division is also counting on its close relationship with the US Bureau of the Census to collect information and feedback on the US experience in implementing NAPCS in the 2007 economic census. Lessons learned and conclusions drawn from the US experience are very likely applicable to the Canadian context given the similarities between the two economies and business behaviours.

To facilitate the attainment of the UES principal goals in terms of standardizing surveys, facilitating the use of administrative data, and managing response burden, Statistics Canada developed the **Chart of Accounts (COA)**. In a paper⁵ she presented at Statistics Canada's 2005 Methodology Symposium, Lucie Vinette described the COA as follows:

- Statistics Canada's chart of accounts is a list of accounts for the collection of financial data. In the business world, that list is commonly known as the general ledger. The accounts included in our general ledger, or chart of accounts, are mutually exclusive and hierarchical.
- Under Statistics Canada's chart of accounts, data can be collected at the establishment, enterprise and legal entity levels, since the chart of accounts contains a concordance between the three data sources. This makes it possible to compare data collected from various sources.

Statistics Canada's new COA provides a concordance and hierarchical relationships between the business accounting, tax terminology, and national accounting or economic concepts that are used by the majority of statistical programs and economic surveys. The

⁵ Statistics Canada's Symposium 2005 Methodological Challenges for Future Information Needs. PROGRESS IN COLLECTING BUSINESS DATA, Lucie Vinette.

COA is also an important condition to allow for **coherence analysis**⁶ and research on enterprise based, establishment based or legal entity based data. This is another area where Statistics Canada is making some tangible progress in its effort to better understand and improve the quality of business statistics, most especially for large and complex enterprises. The content of the survey to the Consulting services industry is fully COA compliant.

| | Management, Scientific and Technical Consulting service Survey portion only - Reference year 2004 | es | |
|---------------|--|--|--|
| NAICS CODE | Revenue categories | Establishments with the product line | Revenue of establishments with the product line |
| | | Number | Millions of dollars |
| | Strategic management and planning, organizational structure and review services | 8,981 | · · · · · |
| | Financial management consulting services | 4,065 | |
| | Human resources management consulting services | 1,811 | · · · · · |
| | Executive search services | 888 | - |
| | Operations management consulting services | 1,726 | |
| | Marketing management consulting services | 3,140 | |
| | Other management consulting services | 2,479 | |
| | Market research and public opinion polling services | 180 | |
| | Economic and social research | 491 | 23 |
| 5416 | Public relations services | 558 | - |
| | Information technology consulting services | 518 | |
| | Education and training | 2,033 | |
| | Environmental consulting services | 1,556 | |
| | Geomatics / Geophysical consulting services | 112 | - |
| | Other scientific and technical consulting services | 3,988 | |
| | Sales of other goods and services produced | 1,126 | |
| | Total operating revenue | 20,583 | · · · · · |
| | Investment and other income | 6,527 | |
| | Total revenue | 20,603 | 6,802 |

Table 2. Product lines by Management, Scientific, and Technical Consulting Services in Canada

5. Evaluation of standard vs definition and market conditions

6.1 National accounts

In Section 4, we referred to the recent development between Canada, the U.S. and Mexico of a new commodity classification (NAPCS). Another important initiative at Statistics Canada will affect the content determination and implementation of NAPCS into industry-based surveys. While NAPCS will provide a commonly agreed upon standard according to which to collect and disseminate commodity information on inputs and outputs, the level of details by which to collect the information will be highly influenced by its use in the System of National Accounts. The main objective of this new initiative is to modernize the System of National Accounts and better reflect the structural shifts in the Canadian economy in the past decades, where we observe a growth of the services sector relative to the manufacturing sector. Consequently, the Canadian inputoutput accounts will be realigned to deemphasize the goods producing industries to increase markedly the representation of service industries, to be more reflective of the

⁶ Coherence analysis is in essence an activity where enterprise level data from difference sources is confronted and scrutinized to better understand the implications of various level and types of business organization on the statistical system and data comparability.

relative importance of the different industries. This will result in a larger number of service industries depicted in the Canadian I-O tables and a corresponding expanded requirement from feeder programs for information on commodity details from service industries (and from programs that survey other industries that consume services as inputs to their production process).

Statistics Canada is fully committed to using NAPCS in the survey content determination. Efforts have been made in the last few years to implement NAPCS details where known and available. We expect to do more on this in the next few years as the SNA firm up requirements for commodity information, and we better assess the "reportability" of the information from businesses, and its availability from administrative data files.

6.2 Other issues

There are a few challenges associated with producing good statistics for the consulting services industries in Canada. One of the most difficult problems we face in relation to the survey frame and ensuring establishments coded to the consulting services NAICS really belong to that industry. Statistics Canada's Business Register Division has an elaborate process and devotes a significant amount of resources to construct, maintain and update a complete frame for the business population. It relies on a wide range of sources rooted into different administrative processes that provide good signals of a business entity's life cycle (various tax files, incorporation registration, payroll deduction accounts, survey feedback, etc.). Our experience over the years has nonetheless shown that there is a significantly higher rate of industry classification error in the consulting services industry. This is likely attributable to the fact that the industry is characterized by a larger number of smaller non-employer businesses (not as often subjected to profiling activities or subjected to surveying). This is also an industry where smaller businesses may change their line of business and service offerings more rapidly and frequently, to adapt to changing market conditions in comparison to larger and more established enterprises. We have also observed that this particular industry is often an industry where businesses for which there are ambiguities about their classification are classified to ("catch all" in the statistical jargon). The resulting effect is an unusually high out of scope rate at survey time in that industry.

Research and analysis conducted on 2002 data showed that only roughly 55% of operating revenue originally associated to the management consulting services industry really belonged to this industry once we adjusted for misclassification based on survey feedback. The out of scope rate was over 35% in both the management consulting industry (NAICS 54161) and in the other scientific and technical consulting (NAICS 541690). The analysis revealed that after thorough review and probing with businesses, the entities often belonged to one of the following industries: holding industry, computer system design industry, portfolio management industry, management services industry, engineer services, and others. The problem is largely related to the fact that any company that mentions "Consultant" or "Consulting" or "Management" in their business activity description has a good chance of landing in the Consulting services industry. The

business register's reliance on automatic coding that was not as fine-tuned as it could, may also have contributed to the problem.

The death rate on the frame in that industry is also significantly higher, again a reflection of the market conditions. The 2003 survey was indicative of a death rate near 30% in the consulting services industry. Given the large population size, any undue delays in processing these updates and changes on the frame have repercussions on the measuring of the industry. For reference year 2004, the combined death and out of scope rate observed from the survey reached as high as 47%. Statistics Canada is the only known source of economic data for that industry and as such is under pressure to continue to produce estimates for that industry in spite of these issues. The severity of the problems have however necessitated that rather bold adjustments be applied to the data, and are calling for corrective measures to resolve the issues.

Macro adjustments based on survey feedback information were applied in the past to account for the limitation with the frame. More recently, in light of the growing magnitude of the problem, we have launched a joint initiative with the Business Register Division to significantly improve the quality of the frame in this particular industry. The following list outlines a series of activities that have already been implemented or are under consideration as part of this initiative:

- Continue to maintain and expand the knowledge and understanding of the industry population in the subject matter division.
- Allocate additional resources to verify the quality of classification coding and apply corrections.
- Possibly expand the sample size and use the survey as an instrument to progressively clean up the frame.
- Review rules and procedures for the industry coding for births on the business register, and in particular in the context of automatic coding.
- Better training of the staff involved in industry coding.
- Investigate using alternate sources of information (industry associations lists) to supplement the frame.
- Investigate using financial ratios (cost of good sold, sales of services) derived from tax data to automatically recode or refine the automatic coding.

While it is important to recognize that intrinsically this industry will always present a greater challenge as far as the frame is concerned, we are confident that together these measures should result in real improvements over the current situation and contribute to more robust industry estimates.

7. Method for measuring output⁷

Statistics Canada's business statistics program underwent a major re-engineering in the mid 90s prompted by a new requirement to significantly improve and expand economic provincial accounts to support new administrative procedures in the context of the

⁷ The methodology description presented in this section was extracted from dissemination material produced by the Service Industries Division.

harmonization of goods and services tax in Canada. Under that program, tax revenues collected by Federal authorities are redistributed to participating regional authorities based on statistical information. The initiative has had a major impact on Statistics Canada's annual business statistics program and in particular on how industry statistics are collected and produced annually. The main trust of the initiative was to integrate, harmonize, standardize, and consolidate a large number of annual industry surveys that were each conducted independently according to their own methodology and set of procedures. The goal of the corresponding program is to produce more timely, reliable and comparable regional data.

Two other important elements of that strategy were: 1. the **mandatory adoption of the** central business register as the survey frame to all such annual surveys, and 2. the adoption of the North American Industry Classification (NAICS). Another pillar of that new approach in relation to the Agency's efforts to better manage response burden, was a significant effort to expand the use of administrative (tax) data, and the adoption of size thresholds below which smaller businesses are systematically excluded from surveys. A significant amount of resources went into this major reengineering and led to the creation of two new divisions that are essential and central to the new process. The Tax Data Division is responsible for the receipt and processing of all administrative data for the entire agency, while the Enterprise Statistics Division is primarily responsible for overseeing the development of a common methodology and for the central processing for virtually all annual industry based surveys. As a result, the role of subject matter divisions (distributive trade, manufacturing, services, etc.) is changing somewhat, deemphasizing direct survey operations and processing type work, and focusing more on programs and content development, outreach with both the providers and the users communities, data analysis and dissemination.

The resulting program is known as the **Unified Enterprise Survey (UES)** and covers a wide range of industries spanning over the manufacturing as well as the services sectors. While not all annual business surveys belong to the UES, the vast majority of them are now conducted according to this new unified approach, and only a minority falls outside the realm of the UES. The annual survey of consulting services industries adhere to this model and is part of this program.

The 2004 consulting services survey was mailed out to a sample of medium and large sized enterprises that were selected to represent all like sized enterprises in the industry. Estimates for the remaining smaller sized enterprises were generated using administrative sources. Of the industry's total operating revenue, 76% is generated by medium and large sized enterprises. The remaining 24% is generated from small enterprises.

Even though the basic objective of the survey is to produce estimates for the whole Consulting Services industry (incorporated and unincorporated businesses), not all businesses are surveyed. Rather, a sample is surveyed and the portion eligible for sampling is defined as all statistical establishments with revenue above a certain threshold (Note: the threshold varies between surveys and sometimes between provinces in the same survey). The excluded establishments are accounted for in the final estimates

using **administrative data**. However, only basic information is obtained from administrative sources; i.e., total revenue, expenses, depreciation and salaries, wages and benefits. Detailed characteristics such as the client base, revenue by type of services provided, and detailed expense items are collected **only for surveyed establishments**.

In the last two years, to facilitate the integration of services surveys to the more generic UES program while allowing for industry specific content, the questionnaires were redesigned in the spirit of the Model surveys developed by the Voorburg Group. This approach called for new supplementary survey modules that would measure characteristics of service activities to be developed and integrated to the questionnaire.⁸ In effect, the whole questionnaire was modularized into generic and industry specific modules. These modules are turned on or off depending on whether or not the information is relevant for the industry being surveys (the redesigned questionnaire for reference year 2006 is presented in the appendix). This modular design ensures that a significant portion of the program is completely harmonized while still providing some flexibility for the collection of industry content.

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 (as discussed above). The frame is maintained by Statistics Canada's Business Register, and is updated using administrative data.

Prior to the selection of a random sample, establishments are classified into homogeneous groups; i.e., establishments coded with the same NAICS code, within the same province or territory. Quality requirements are targeted, and then each group is divided into four sub-groups called strata: take-all, must-take, take-some and take-none. The take-all stratum includes the largest firms of the industry in terms of the size of their total revenue. Every firm is sampled, which means each firm represents itself and is given a weight of one. The must-take stratum is also comprised of self-representing units, but these are selected on the basis of complex structure characteristics (multi-establishment, multi-legal, multi-NAICS, or multi-province enterprises). The take-some stratum consists of a statistical sample of records that are selected randomly to represent the non-sampled records. The take-none stratum consists of the smallest units, and is not subject to sampling. Administrative data will be used for the take-none units.

Data are collected through a **mail-out/mail-back process**, while providing respondents with the option of telephone interview or other electronic filing methods. The statistical establishment is used as the sampling unit, but selected establishments belonging to the same company, the same industry, and the same province are aggregated to create a "collection entity". This reduces respondent burden and simplifies collection. Therefore, companies with production in more than one province are mailed one questionnaire per province and instructed to report for all Canadian operations.

⁸ L.-M Ducharme and M. Da Pont provided an excellent overview of the survey redesign in their paper: Canada's annual surveys re-design for services: A practical view of the model survey (2005). The paper was presented at the 2005 meeting of the Voorburg Group in Helsinki.

Several checks are performed on the collected data to verify internal consistency and identify extreme values. Where information is missing, imputation is performed using either a "nearest neighbour" procedure (donor imputation), using historical data where available or finally, using administrative data as a proxy for reported data.

As part of the production of final estimates, data for companies operating in more than one province or territory are allocated to the provincial level. Administrative data are used to estimate for the portion of the industry that was excluded from survey activity (i.e. small firms whose revenues fell below cut-off thresholds). Sampled data are then weighted to produce estimates representative of the target population.

Prior to publication, 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 administrative data (e.g., income tax, goods and services tax, payroll deductions records, industry and trade association sources).

8. Comparability of output data with price index practices

Statistics Canada does not currently produce an explicit price index for the consultancy services industry. However, there is a new project to develop such an index in the next twelve months as a part of a broader initiative at Statistics Canada on expanding statistical information on the Services sector.

9. Summary

Over the last decade, Statistics Canada developed and implemented a new integrated survey framework by which to conduct its industry surveys annually. This program is characterized by the use of a unique central business frame (the Business Register), standard industry and commodity classifications, standard concepts, methodologies and procedures, common tools, and an increased reliance on administrative data (annual income tax). The program also depends heavily on the central delivery of a number of critical functions in the areas of data collection, the provision and processing of administrative data, and the processing of survey data. Together these account for a more efficient and uniformed survey process across the whole spectrum of annual industry surveys. This Statistics Canada's program is called the Unified Enterprise Survey (UES). The reference to enterprise in the program is also a reflection of the fact that one of the stated objectives of the program is to ensure coherence in the data produced from establishment based or enterprise based programs. The annual survey for the consulting services industry is part of the UES program and therefore follows this integrated approach and survey framework.

While the survey benefits from the development and improvement of the UES and its infrastructure, it nonetheless faces challenges of its own. Quality problems with the survey frame in terms of industry classification in that industry where there is a larger number of smaller businesses and greater number of births and deaths, complicates the production of estimates. While these problems were circumvented in the past by

combining survey information, industry and subject matter knowledge to develop and apply appropriate macro adjustments to the industry estimates, the size of the problems is now calling for other solutions. Statistics Canada's Service Industries Division and the Business Register Division will work together over the next several months to articulate and implement a series of new measures outlined in the paper to attempt to alleviate the problem.

Appendix – 2006 Survey Questionnaire

| | | Cons | | Service | | dustries | 5: | | Si vous p | oréférez nous téle | recevoir c | e ques | vhen compl tionnaire en èro sans frais | frança | | |
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| ⁰⁰¹ L | egal nan | ne | | | | | | 0004 | Address (number and street) | | | | | | | |
| | Business name | | | | | | | 0005 | City | | | | | | | |
| | Fitle of contact | | | | | | | 0006 | Province/ Territory or State | | | | | | | |
| | First name of contact | | | | | | | 0053 | Country | | | 0007 | Postal co Zip code | de/ | | |
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| | Please describe the nature of your business. |
|---|--|
| | |
| | |
| 2. | Please check the one main activity which most accurately represents your main source of revenue. |
| 2. | ⁰²⁶¹ Administrative management consulting and general management consulting services |
| | ⁰²⁶² Human resource and executive search consulting services |
| | ⁰²⁶³ Other management consulting services |
| | ⁰²⁶⁴ Environmental consulting services |
| | ⁰²⁶⁵ Other scientific and technical consulting services |
| | ⁰⁰⁴⁰ None of the above – Please call 1 888 881-3666 for further instructions. |
| <u> </u> | |
| 1. | Reporting Period Information Please report information for your <u>fiscal year</u> (normal business year) ending between April 1, 2006 and |
| •• | March 31, 2007. Please indicate below the period covered by this questionnaire. |
| | YYYY MM DD YYYY MM DD |
| | From 0011 To 0012 |
| 2. | If you did not operate this business unit for a full year , please check the reason(s) below: |
| | |
| | 0031 1 □ Seasonal 2 □ New 3 □ Change of 4 □ Change of 5 □ Ceased 6 □ Temporarily operations business fiscal year ownership operations inactive |
| | |
| Re | eporting Instructions: |
| | |
| - | Report for business unit(s) specified on the label on the front page. |
| | |
| - | - Report for business unit(s) specified on the label on the front page. |
| - | Report for business unit(s) specified on the label on the front page. Complete only the questions that apply to your business. |
| - | Report for business unit(s) specified on the label on the front page. Complete only the questions that apply to your business. When precise figures are not available, please provide your best estimate. |
| - | Report for business unit(s) specified on the label on the front page. Complete only the questions that apply to your business. When precise figures are not available, please provide your best estimate. Report in Canadian dollars only. Dollar amounts and percentages should be rounded to whole numbers. Consult the enclosed Reporting Guide for further information. |
| - - - D | Report for business unit(s) specified on the label on the front page. Complete only the questions that apply to your business. When precise figures are not available, please provide your best estimate. Report in Canadian dollars only. Dollar amounts and percentages should be rounded to whole numbers. Consult the enclosed Reporting Guide for further information. |
| - - - D | Report for business unit(s) specified on the label on the front page. Complete only the questions that apply to your business. When precise figures are not available, please provide your best estimate. Report in Canadian dollars only. Dollar amounts and percentages should be rounded to whole numbers. Consult the enclosed Reporting Guide for further information. Revenue Sales of goods and services (e.g., rental and leasing income, commissions, fees, admissions, services revenue) |
| - - - D | Report for business unit(s) specified on the label on the front page. Complete only the questions that apply to your business. When precise figures are not available, please provide your best estimate. Report in Canadian dollars only. Dollar amounts and percentages should be rounded to whole numbers. Consult the enclosed Reporting Guide for further information. Revenue Sales of goods and services (e.g., rental and leasing income, commissions, fees, admissions, services revenue) Report net of returns and allowances. A detailed breakdown will be requested in Section F. |
| - - - D 1. | Report for business unit(s) specified on the label on the front page. Complete only the questions that apply to your business. When precise figures are not available, please provide your best estimate. Report in Canadian dollars only. Dollar amounts and percentages should be rounded to whole numbers. Consult the enclosed Reporting Guide for further information. Revenue Sales of goods and services (e.g., rental and leasing income, commissions, fees, admissions, services revenue) Report net of returns and allowances. A detailed breakdown will be requested in Section F. Grants, subsidies, donations and fundraising |
| - - D 1. 2. | Report for business unit(s) specified on the label on the front page. Complete only the questions that apply to your business. When precise figures are not available, please provide your best estimate. Report in Canadian dollars only. Dollar amounts and percentages should be rounded to whole numbers. Consult the enclosed Reporting Guide for further information. Revenue Sales of goods and services (e.g., rental and leasing income, commissions, fees, admissions, services revenue) Report net of returns and allowances. A detailed breakdown will be requested in Section F. |
| - - - - - - - - - - - - - - - - - - - | Report for business unit(s) specified on the label on the front page. Complete only the questions that apply to your business. When precise figures are not available, please provide your best estimate. Report in Canadian dollars only. Dollar amounts and percentages should be rounded to whole numbers. Consult the enclosed Reporting Guide for further information. Revenue Sales of goods and services (e.g., rental and leasing income, commissions, fees, admissions, services revenue) Report net of returns and allowances. A detailed breakdown will be requested in Section F. Grants, subsidies, donations and fundraising |
| - | Report for business unit(s) specified on the label on the front page. Complete only the questions that apply to your business. When precise figures are not available, please provide your best estimate. Report in Canadian dollars only. Dollar amounts and percentages should be rounded to whole numbers. Consult the enclosed Reporting Guide for further information. Revenue Sales of goods and services (e.g., rental and leasing income, commissions, fees, admissions, services revenue) Report net of returns and allowances. A detailed breakdown will be requested in Section F. Grants, subsidies, donations and fundraising Royalties, rights, licensing and franchise fees Investment income (dividends and interest) Other revenue 2001 |
| - - - D 1. 2. 3. 4. | Report for business unit(s) specified on the label on the front page. Complete only the questions that apply to your business. When precise figures are not available, please provide your best estimate. Report in Canadian dollars only. Dollar amounts and percentages should be rounded to whole numbers. Consult the enclosed Reporting Guide for further information. Revenue Sales of goods and services (e.g., rental and leasing income, commissions, fees, admissions, services revenue) Report net of returns and allowances. A detailed breakdown will be requested in Section F. Grants, subsidies, donations and fundraising Royalties, rights, licensing and franchise fees Investment income (dividends and interest) |

| • | Expenses | | |
|----------|--|------|-------|
| | | 3010 | CAN\$ |
| 1. 2. | Salaries and wages of employees who have been issued a T4 statement Employer portion of employee benefits (include employer contributions to pension, | 3040 | |
| 2. | medical/life insurance plans, employment insurance, etc.) | | |
| 3. | Commissions paid to non-employees | 4466 | |
| 4. | Professional and business service fees (e.g., legal, accounting) | 4315 | |
| 5. | Outsourcing (include work contracted out such as payments to freelancers, personnel suppliers, artists, etc.) | 3060 | |
| 6. | Charges for services provided by your head office | 4555 | |
| 7. | Cost of goods sold – if applicable (purchases plus opening inventory minus closing inventory) | 5721 | |
| 8. | Office supplies | 3301 | |
| 9. | Rental and leasing (include rental of premises, equipment, motor vehicles, etc.) | 4115 | |
| 10. | Repair and maintenance (e.g., property, equipment, vehicles) | 4178 | |
| 11. | Insurance (include professional liability, motor vehicles, etc.) | 4350 | |
| 12. | Advertising, marketing and promotions (report charitable donations at question 22) | 4365 | |
| 13. | Travel, meals and entertainment | 4370 | |
| 14. | Utilities (include gas, heating, hydro, water) | 4066 | |
| 15. | Telephone, Internet and other telecommunication expenses | 4101 | |
| 16. | Property and business taxes, licences and permits | 4410 | |
| 17. | Royalties, rights, licensing and franchise fees | 4440 | |
| 18. | Delivery, warehousing, postage and courier | 4179 | |
| 19. | Financial services fees (e.g., bank and credit card charges) | 4325 | |
| 20. | Interest expenses | 4630 | |
| 21. | Amortization and depreciation of tangible and intangible assets | 4520 | |
| 22. | Charitable donations | 4521 | |
| 23. | Bad debts | 4542 | |
| 24. | All other expenses 4531 (please specify): | 4569 | |
| 25. | Total expenses (sum of questions 1 to 24) | 4699 | |
| 26. | Corporate taxes (if applicable) | 4600 | |
| 27. | Gains (losses) and other items (see Reporting Guide) | 4601 | |
| 28. | Net profit/loss after tax and other items (see Reporting Guide) | 2304 | |

| Plea | ase provide a breakdown of your sales. | | | | |
|------|--|-------|--------|----|------------------|
| | ase indicate if you are reporting in either Canadian dollars or percentage of total sales. | | | | |
| FICC | Se liluluale il you are reporting il enner Ganadian donars or porocinage or total calco. | 9973 | | | |
| | | | 1 🗌 \$ | OR | ² 🗌 % |
| 1. | General, administrative and strategic management consulting services | 2460 | | | |
| | | 2461 | | | |
| 2. | Financial management consulting services | 2901 | | | |
| | | 2465 | | | |
| 3. | Marketing management consulting services | | | | |
| | | 2464 | | | |
| 4. | Operations management consulting services | | | | |
| 5 | | 2462 | | | |
| 5. | Human resources management consulting services | - 100 | | | |
| 6. | Executive search services | 2463 | | | |
| | | 2469 | | | |
| 7. | Other management consulting services | | | | |
| | | 2467 | | | |
| 8. | Economic consulting services | | | | |
| • | | 2470 | | | |
| 9. | Information technology consulting services | | | | |
| 10. | Environmental consulting services | 2471 | | | |
| | | 2586 | | | |
| 11. | Waste management consulting services | | | | |
| | | 2587 | - | | - |
| 12. | Agricultural, fishery and biological consulting services | | | | |
| | | 2473 | | | |
| 13. | Energy, mining, geological and geophysical consulting services | | | | |
| 14. | Safety and security consulting services | 2588 | | | |
| • •• | | 2472 | | | |
| 15. | Other scientific and technical consulting services | 2472 | | | |
| | 2559 | 2558 | - | | - |
| 16. | All other sales (please specify): | | | | |
| | | 2305 | | | |
| 17. | Total sales (sum of questions 1 to 16) | | | | |

| | - Personnel | 6321 | Number |
|---|--|---|----------|
| 1. | Number of non-salaried partners and proprietors (if salaried, report only at question 2 below) | | |
| 2. | a) Number of paid employees (based on year-end T4 payroll summaries) | 6339 | |
| | % | | |
| | b) Percentage of paid employees who worked full time | | |
| | | | Number |
| 3. | Number of contract workers (for whom you did not issue a T4, such as freelancers and casual workers) | 6320 | |
| 4. | Number of volunteers (including unpaid interns and co-op students) during the reporting period (estimates are acceptable) | 6014 | |
| | | | Number |
| 5. | Total number of hours worked by volunteers during the reporting period (estimates are acceptable) | 6026 | of hours |
| H | - Sales by Type of Client | | |
| Ple | ase provide a percentage breakdown of your sales by type of client. | | |
| 1. | Clients in Canada | _ | % |
| | a) Businesses | 8112 | |
| | b) Individuals and households | 8100 | |
| | c) Governments and public institutions (e.g., hospitals, schools) | 8233 | |
| 2. | Clients outside Canada | 8140 | |
| | Total | | 100% |
| | Sales by Client Location | | |
| | ase provide a percentage breakdown of your sales by client location (first point of sale). | | % |
| Ple | - | 8400 | % |
| Ple 1. | ase provide a percentage breakdown of your sales by client location (first point of sale). | 8400 | % |
| Ple 1. 2. | ase provide a percentage breakdown of your sales by client location (first point of sale). Newfoundland and Labrador | | % |
| Ple 1. 2. 3. | ase provide a percentage breakdown of your sales by client location (first point of sale). Newfoundland and Labrador Prince Edward Island | 8415 | % |
| Ple 1. 2. 3. 4. | ase provide a percentage breakdown of your sales by client location (first point of sale). Newfoundland and Labrador Prince Edward Island Nova Scotia | 8415 8405 | % |
| Ple 1. 2. 3. 4. | ase provide a percentage breakdown of your sales by client location (first point of sale). Newfoundland and Labrador Prince Edward Island Nova Scotia New Brunswick | 8415 8405 8410 | % |
| Ple 1. 2. 3. 4. 5. | ase provide a percentage breakdown of your sales by client location (first point of sale). Newfoundland and Labrador Prince Edward Island Nova Scotia New Brunswick Quebec | 8415 8405 8410 8420 | % |
| Ple 1. 2. 3. 4. 5. 6. 7. | ase provide a percentage breakdown of your sales by client location (first point of sale). Newfoundland and Labrador Prince Edward Island Nova Scotia New Brunswick Quebec Ontario | 8415 8405 8410 8420 8425 | % |
| Ple 1. 2. 3. 4. 5. 6. 7. 8. | ase provide a percentage breakdown of your sales by client location (first point of sale). Newfoundland and Labrador Prince Edward Island Nova Scotia New Brunswick Quebec Ontario Manitoba | 8415 8405 8400 8420 8425 8430 | % |
| Ple 1. 2. 3. 4. 5. 6. 7. 8. 9. | ase provide a percentage breakdown of your sales by client location (first point of sale). Newfoundland and Labrador Prince Edward Island Nova Scotia New Brunswick Quebec Ontario Manitoba Saskatchewan | 8415 8405 8410 8420 8425 8430 | % |
| Ple 1. 2. 3. 4. 5. 6. 7. 8. 9. | ase provide a percentage breakdown of your sales by client location (first point of sale). Newfoundland and Labrador Prince Edward Island Nova Scotia New Brunswick Quebec Ontario Manitoba Saskatchewan Alberta | 8415 8405 8410 8420 8425 8430 8435 8440 | % |
| Ple 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. | Ase provide a percentage breakdown of your sales by client location (first point of sale). Newfoundland and Labrador Prince Edward Island Nova Scotia New Brunswick Quebec Ontario Manitoba Saskatchewan Alberta British Columbia | 8415 8405 8407 8420 8420 8420 8430 8435 8440 8445 | % |
| Ple 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. | Ase provide a percentage breakdown of your sales by client location (first point of sale). Newfoundland and Labrador Prince Edward Island Nova Scotia New Brunswick Quebec Ontario Manitoba Saskatchewan Alberta British Columbia Yukon Northwest Territories | 8415 8405 8407 8420 8420 8425 8430 8435 8445 8455 | % |
| Ple 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. | ase provide a percentage breakdown of your sales by client location (first point of sale). Newfoundland and Labrador Prince Edward Island Nova Scotia New Brunswick Quebec Ontario Manitoba Saskatchewan Alberta British Columbia Yukon | 8415 8405 8410 8420 8425 8430 8435 8440 8445 8455 | % |

| | ase report in Canadian dollar <u>e:</u> Services cover a variet royalties, rights, licence | y of indus | | | | | | | |
|-----|---|--------------|--------------------------------|-------|----------------------|------|--------------------|---------------------------------------|----------------------|
| | costs. | | | CAN\$ | | | | CAN\$ | |
| | | | Payments made outside Canad | | | | | o customers outside nada (exports) | |
| | | | Services | | Royalties and rights | | Services | | Royalties and rights |
| ۱. | United States | 0538 | | 0509 | | 0558 | | 0548 | |
| 2. | Mexico | 0539 | | 0510 | | 0559 | | 0549 | |
| 3. | United Kingdom | 0540 | | 0511 | | 0560 | | 0550 | |
| 4. | France | 0541 | | 0512 | | 0561 | | 0551 | |
| 5. | Other European Union countries ¹ | 0542 | | 0513 | | 0562 | | 0552 | |
| 6. | Africa | 0601 | | 0597 | | 0609 | | 0605 | |
| 7. | Middle East countries ² | 0602 | | 0598 | | 0610 | | 0606 | |
| 8. | India | 0603 | | 0599 | | 0611 | | 0607 | |
| 9. | China | 0543 | | 0514 | | 0563 | | 0553 | |
| 10. | Japan | 0544 | | 0515 | | 0564 | | 0554 | |
| 11. | Other Asian Pacific countries ³ | 0545 | | 0516 | | 0565 | | 0555 | |
| 12. | Australia/New Zealand | 0604 | | 0600 | | 0612 | | 0608 | |
| 13. | All other countries (please specify): 0613 | 0546 | | 0517 | | 0566 | | 0556 | |
| 14. | Total | 0547 | | 0524 | | 0567 | | 0557 | |
| | 1. Other European Union of Germany, Greece, Hunga Slovenia, Spain, and Swe | ry, Ireland, | | - | | • | | | |
| | Middle East countries (A Territory, Qatar, Saudi Ara | Armenia, Az | | | | | Kuwait, Lebanon, (| Oman, F | Palestinian |
| | 3. Other Asian Pacific cour Malaysia, Myanmar, Papu | | | | | | | Republ | ic, |

| 1. | Please report the Canada during the the firm for which and employment. | e repo | orting period. But | siness | s unit is defined | as the | e lowest level of | | Number |] | |
|------------|---|--------------|--|--------|--------------------|--------------|---|--------|---|------|---------------|
| 2. | Do you have perm | – Pl | ease complete | ques | tion 3 | n <u>one</u> | province or terr | itory? | 2 | | |
| | | | ease go to Sect | | | | hish you have h | | aa unita | | |
| 3. | Please report the | follow | ing data for the | provir | ices or territorie | es in w | nich you have b | usine | ess units. | | |
| | Please indicate if | you a | re reporting in e i | ither | | | - | | | | |
| | | | | | 9967 1 | _\$ | OR ² |] % | | | |
| | | b | Number of ousiness units (locations) | 1 | Fotal revenue | | alaries, wages nd employee benefits | d | nortization and epreciation of tangible and angible assets | 1 | otal expenses |
| Ι. | Newfoundland and Labrador | 5002 | | 4824 | | 4826 | | 4827 | | 4927 | |
| 2. | Prince Edward Island | 5003 5004 | | 4829 | | 4831 | | 4832 | | 4932 | |
| 3. | Nova Scotia | 5004 | | 4834 | | 4836 | | 4837 | | 4937 | |
| i . | New Brunswick | 5005 | | 4839 | | 4841 | | 4842 | | 4942 | |
| 5. | Quebec | 5006 | | 4844 | | 4846 | | 4847 | | 4947 | |
| 6. | Ontario | 5007 | | 4849 | | 4851 | | 4852 | | 4952 | |
| 7. | Manitoba | 5008 | | 4854 | | 4856 | | 4857 | | 4957 | |
| 3. | Saskatchewan | 5009 | | 4859 | | 4861 | | 4862 | | 4962 | |
| Э. | Alberta | 5010 | | 4864 | | 4866 | | 4867 | | 4967 | |
| 10. | British Columbia | 5011 | | 4869 | | 4871 | | 4872 | | 4972 | |
| 11. | Yukon | 5014 | | 4874 | | 4876 | | 4877 | | 4977 | |
| | Northwest | 5013 | | 4879 | | 4881 | | 4882 | | 4982 | |
| 13. | Territories Nunavut | 5012 | | 4884 | | 4886 | | 4887 | | 4987 | |
| 14. | Total | 5015 | | 4889 | | 4891 | | 4892 | | 4992 | |
| | | 1 | | 1 | | | | I | | I | |
| | | | | | | | | | | | |

| L - Contac | t Information | |
|--|------------------------------|--|
| 0015 | Date completed | Name of person to contact about this questionnaire: |
| YYYY | MM DD | |
| | | |
| | | 013 First name |
| | | Last name |
| | | 0054 |
| | | Title 0014 |
| E-mail | | Website |
| address | | address 0020 |
| Telephone number ⁰⁰¹⁷ | () | Extension Fax number number () 0027 0016 |
| How long did y | ou spend collecting the data | and completing the questionnaire? |
| M - Comm | | |
| 9913 | | |
| 9915 | | |
| 9916 | | |
| | | |
| | | |
| Thank | you for completing | this questionnaire. Please retain a copy for your records. |
| | | Visit our website at www.statcan.ca |
| | | Visit our website at www.statcan.ca |

References

Report on the 2004 Survey of Management, Scientific and Technical Consulting Services, Statistics Canada, Service Industries Division

Standards Division, Statistics Canada Internal web site on Industrial Classification

Ducharme, L.-M. and Da Pont, M. (2005). Canada's annual survey's redesign for services: A practical view of the model survey, Paper presented at the 2005 Voorburg Group Meeting in Helsinki, Finland