Response Burden Measurement and Motivation at Statistics Canada

Janet Sear
Statistics Canada: janet.sear@statcan.gc.ca

Abstract

In its role as Canada’s national statistical agency, Statistics Canada must aim to strike the best possible balance between meeting the needs of its data users for good and timely information on the one hand, and the costs to its survey respondents of supplying that information on the other.

The agency has long been aware of the critical role that respondent goodwill plays in the functioning of an effective statistical system. Statistics Canada recognizes the value of treating its survey respondents with respect and understands the benefits derived from maintaining good relations with them. It recognizes the negative effect of excessive survey burden (real and perceived) on data quality and organizational efficiency. As a result, over the years, the agency has put in place a number of initiatives focusing on respondent relations, including having an Ombudsman for Business Response Burden. Among other interests and duties, it is the Ombudsman’s office that annually measures and reports on the response burden imposed by the agency’s business survey programs.

As has been stated in papers previously written by Statistics Canada, the agency’s vision on response management follows five broad principles: foster good relationships with business respondents; use administrative data whenever possible as an alternative to direct surveying; design collection instruments in a respondent friendly manner; develop sampling and follow-up strategies that are respectful and take a holistic view of response burden; ask for required data elements only once.

Traditionally discussion on burden management tends to focus on the need to manage the load imposed on the small respondent, however, the large enterprise that bears the brunt of many statistical demands should not be overlooked.

This paper will discuss the various respondent oriented programs and practices currently in place at Statistics Canada as well as how we measure and monitor burden. It will also highlight future plans for further reductions.

Keywords: response burden, administrative data, Ombudsman
1 Background

Statistics Canada’s mandate derives primarily from the Statistic Act. The Act requires that the agency collect, compile, analyse and publish statistical information on the economic, social and general conditions of the country and its people.

The Act confers substantial powers on the agency to request information for statistical purposes through surveys of businesses and households. It stipulates a legal obligation to respond.

Despite the mandatory nature of Statistics Canada’s business surveys, the agency has long been aware of the critical roles that buy-in and willing cooperation of respondents play in the functioning of an effective statistical system. It understands that, in its role as Canada’s national statistical agency, it must aim to strike the best possible balance between meeting the needs of data users for relevant and high quality information on the one hand, and the costs to survey respondents of supplying that information on the other.

In striving to achieve this proper balance, the agency has developed a response management strategy that rests on the following five principles (Gaudreau and Lys, 2009):

1. Foster good relationships with business respondents.
2. Use administrative data as an alternative to direct surveying wherever possible.
3. Design collection instruments in a respondent friendly manner that make it easy for respondents to respond.
4. Develop and implement sampling and follow up strategies that take a holistic view of response burden and that are respectful to respondents and staff.
5. Ask for required data elements only once from the same respondent.

2 Enterprise Portfolio Management Program

As the keystone of the agency’s efforts to foster good relationships with business respondents, Statistics Canada has put in place an Enterprise Portfolio Management Program (EPMP).

The EPMP was set up within Statistics Canada to manage the agency’s relationship with its largest, most important businesses. Keeping these businesses motivated by making them aware of the importance of the surveys they receive (the usefulness); clarifying misunderstandings and misconceptions; and managing the burden being imposed upon them is the program goal.

The EPMP function is managed through a team of individual Enterprise Portfolio Managers (EPMs) where each member of the team is responsible for establishing and sustaining a
relationship with each of the businesses within their individual portfolios. The program supports an ‘enterprise-centric’ approach whereby each EPM, is viewed as the focal point for the respondent in his/her dealings with Statistics Canada. The degree to which the EPM is the sole contact point depends, to a large degree, on the wishes of the company contact.

In addition to its relationship management function, for the 300 enterprises currently within the program, the EPMP is responsible for the accuracy of the legal and operating structures of these enterprises on Statistics Canada’s Business Register; for survey collection management; and for analysing returned data for consistency and coherence.

3 Uses of Administrative Data

It is through the use of administrative data that Statistics Canada is able to make its greatest strides in keeping response burden to a minimum.

Under the Statistics Act, Statistics Canada has the authority to access numerous administrative files expressly for use in its statistical programs. Improvements over the years in the quality of these files and our ability to make use of them have resulted in significant advancements for the agency. Today, nearly all business survey programs are making use of administrative information to some degree.

As previously discussed (Royce, 2005), aiding Statistics Canada in its ability to make use of tax data is the fact that in 1997, Revenue Canada (now the Canada Revenue Agency) undertook a program to assign a unique Business Number (BN) to each business with which it dealt, no matter what the administrative program. As well, incorporated businesses were required to file their annual corporate tax returns using a standardized Generalized Index of Financial Information. These two key developments significantly accelerated access to the data in standard form; provided the ability to bring together and confront administrative data from a number of different sources; and made it possible to integrate these administrative sources with survey data via the Business Register. The result has been significant progress in the use of administrative data to replace survey data.

Today, for annual establishment surveys, the agency is able to exclude those businesses representing the lowest 10% of gross business income from survey samples as annual tax returns are used to estimate for this portion of the universe. By doing so, over half of the businesses that would normally fall into sample are not sent a survey questionnaire.

As well, for some annual surveys, a sample is selected from the remaining units and then a certain portion of the “simple” establishments within the sample (those operating only in one industry and one province) are tagged to be replaced by tax records. For 2009, this allowed survey program areas to eliminate over 70,000 questionnaires that would normally
have been sent out for collection. Tax data are also used routinely for imputing for survey non-response.

For monthly and quarterly surveys, administrative files from the goods and services tax (GST) are also being used. For the monthly Survey of Employment Payrolls and Hours, information on the total gross monthly payrolls and the total number of employees for the last pay period of the month from the CRA payroll deduction forms are used extensively. International Trade customs based trade data are derived from the administrative records of the Canada Border Services Agency and the United States Custom's Border Protection. In addition to the use of taxation data, Statistics Canada uses regulatory railway data from Transport Canada; air fare tariff and licensing information from the Canadian Transportation Agency; Canada Border Services Agency Advanced Commercial Information data on marine commodity origin and destination; and provincial and territorial vehicle registration files to name a few.

Additionally, a research project is currently underway to determine the feasibility of replacing respondent-provided farm financial data with tax data for the 2016 Census of Agriculture, with the goals of reducing response burden and at the same time improving the quality of the financial data. Tax data replacement is also being looked into for the annual Farm Financial Survey.

Despite this already rather extensive use of administrative data, the agency feels that even more can be done to further reduce compliance costs as well as improve organizational efficiency. Focusing on the financial data supplied for corporate taxation purposes as well as payroll deduction information, the agency, through a project entitled the Integrated Business Statistics Program (IBSP), plans to make an even more ambitious use of tax data.

Instead of using tax data for just a sub-sample of the sampled units, tax data will be the backbone of the estimation of financial data for all eligible units. Only complex businesses (those who operate in more than one industry or more than one province) for whom the use of tax data is problematic, will be surveyed for financial data. For the small and medium-sized businesses, a tax replacement methodology will be followed and these units will only be surveyed for characteristics data - data not available from tax records (e.g. commodities, business practices, origin and destination of goods). (See Brodeur and Ravindra, 2010)

### 4 Collection Instrument Design and Follow-up Strategies

Questionnaire design has long been recognized as a key determinant of response burden. Statistics Canada policy requires that all new and redesigned questionnaires be tested with a group of respondents before being used in surveys. Among the goals of such testing is the assurance that the information requested is understood by the respondent and that it can be reported. In the case of business surveys, these objectives have been further pursued by the
development of a *Chart of Accounts* (COA) for financial information. The COA is a standardized hierarchy of business accounting information, and provides a bridge between the requirements of data users such as the System of National Accounts and the standard bookkeeping practices of businesses. Respondent testing was conducted on survey questionnaires that had been redesigned under the COA framework and the reaction was very positive.

The agency, mainly through insights developed as a result of company contacts through the EPMP, has realized that it must develop a survey collection tool that better suits the needs of the very large and complex units, those that operate in multiple industries and/or provinces and who do not see themselves, nor organize themselves according to the concepts of a National Statistical Institute. Within this group, burden can be very high with a single contact point receiving multiple data enquiries from multiple program areas at multiple times during collection periods. Here an enterprise-centric approach and a user friendly electronic collection vehicle are required in order to properly manage burden.

Providing respondents with flexibility as to how they can respond (mail-back, CATI, Internet, EXCEL questionnaire formats) and a degree of control as to when, can go a long way in managing the perception of response burden. The agency is currently in the process of enhancing its E-Collection tools to the point where it expects to offer an E-Questionnaire as the primary collection mode for all respondents.

### 5 Sampling Strategies

It is often possible to control respondent burden at the design stage, especially for small and medium-sized businesses. Surveys can be designed so that the current sample minimizes overlap with the sample selected on the previous occasion. Also, sample overlap can be controlled between surveys which are targeting the same industries. This approach requires coordination between surveys and sampling systems. Sample rotation, where a larger main sample is selected and only certain portions (panels) are surveyed on a rotation basis can also be used – this method is mostly used for sub-annual surveys.

As examples, the monthly *Survey of Employment, Payrolls and Hours* (SEPH) rotates its sample units out after they have been in sample for twelve months. Several of our Agriculture surveys also use rotation to spread the respondent burden over the population.

Although sample rotation and even in-sample “vacations” can work well in certain circumstances, neither have yet been widely adopted at Statistics Canada for a number of reasons. Sample co-ordination attempts are also hindered by the fact that not all surveys are yet hooked to the Business Register. However, under a Corporate Business Architecture (CBA) initiative that aims at improving our business processes and systems, all business surveys must now be hooked to the Business Register. This requirement, coupled with the
IBSP (another project within the CBA initiative) will allow the agency to make greater use of these burden reduction tools. Additionally, there will be an ability to monitor and report on burden levels at the individual establishment and enterprise levels.

As well, with the Data Service Center that will come with the IBSP, the agency will then also be in a position to fulfill its goal of asking once and only once.

6 Ombudsman

As a tangible example of Statistics Canada’s commitment to managing and minimizing response burden on business survey respondents, the position of Ombudsman for Business Response Burden was established in March 1997.

The Ombudsman is the respondent’s representative within Statistics Canada. The position acts as a mechanism to identify, promote awareness and mitigate the burden imposed by the agency’s many business surveying areas. The Ombudsman sees compliance cost from the respondent’s perspective; gathering a corporate-wide view of the burden being imposed.

6.1 Roles and Responsibilities

The Ombudsman has three basic responsibilities:

6.1.1 Complaint Resolution

The first is to investigate and resolve complaints from business survey respondents regarding excessive burden. These complaints can be received via the Chief Statistician’s Office (e.g. Ministerial requests), from business associations (almost exclusively the Canadian Federation of Independent Business), or directly from businesses. The resolution process involves attaining a clear picture of the situation, which may involve contacting the complainant; reviewing the case with the subject matter division(s) involved; and sending a letter explaining the decision rendered.

The Ombudsman is viewed as being the recourse of last resort for complainants. She/he is expected to render rulings that are fair, balanced and impartial, and not to simply reinforce operational requirements.

6.1.2 Response Burden Measurement

The Office of the Ombudsman produces a quantitative estimate of total response burden hours calculated annually as the product of (i) the frequency of each survey, (ii) the average time it takes a business to complete a questionnaire and (iii) the number of surveyed respondents (see more in Section 8).
6.1.3 Building Relationships with Business Associations

The Ombudsman also has a role in promoting a better understanding of the relevance and importance of Statistics Canada surveys to the business community and in building cooperation between the agency and business associations. The Canadian Federation of Independent Business (CFIB) was an important advocate of the Ombudsman function when it was first conceived. A protocol exists whereby the CFIB directs first time complaints to Statistics Canada’s Respondent Relations Unit for resolution. Only when the complaining business finds the solution brokered by the Respondent Relations Unit to be less than satisfactory will the CFIB escalate the complaint to the Ombudsman Office. To date, this has never occurred.

6.2 Governance

In order to allow the Ombudsman to stay in touch with survey program decisions that will affect respondents, the position reports to the Director General of the Industry Statistics Branch. The Ombudsman is also secretary of a Senior Management Committee on Business Response Management (SMCBRM) that is chaired by the Assistant Chief Statistician responsible for the Business and Trade Statistics Field. The committee is comprised of all director generals within the Field and has high level representation from all areas involved in the process of business surveying – Business Register Division, Collection and Regional Services Branch, System of National Accounts, Client Services Division.

7 SMCBRM, Mandate and Terms of Reference

The SMCBRM is responsible for providing strategic direction and coherence to the management of business response burden at Statistics Canada. The committee addresses horizontal issues related to response burden and focuses on the initiation and review of actions to provide tangible burden reductions to business survey respondents. The committee also scrutinizes any planned increases in burden due to new surveys or modifications of existing surveys. The committee promotes awareness and the consistent application of best practices with respect to burden limitation across all business surveys. Members are told to take the respondent’s perspective.

8 Response Burden Measurement

Compliance cost data is available within Statistics Canada, to some extent, as far back as 1988. The cost of compliance, also referred to as a measurement of response burden, is defined as the total cost (in hours) that is imposed on businesses to complete our surveys. It is determined (as mentioned in sub-section 6.1.2) by multiplying each survey’s average sample size by the survey frequency and then by the time taken to complete.
The measurement is compiled annually by the office of the Ombudsman for Business Response Burden by an annual enquiry sent to all divisions in the agency that conducted a business survey in the previous year. Currently there are 16 divisions within Statistics Canada conducting at least one business survey. In any given year there are usually between 215 and 220 business surveys in the field.

High-level aggregate results are published in the agency’s annual *Departmental Performance Report* to Parliament (see Table 1 and 2). More detailed data are used by the SMCBRM to monitor progress and promote the development of strategies aimed at reducing business survey response burden (see Figure 1 as one example).

Response burden had been steadily on the decline between 1999 and 2004 due to increased use of administrative data together with the simplification of questionnaire content for a number of surveys. Since 2004, however, compliance costs have started to slowly creep back upwards due to client demands for information not available from administrative sources. These new data demands include requirements for information on the provincial origin and destination of wholesale goods; an expansion of the service industries program; surveys on service producer prices; and even a survey on regulatory compliance costs. Still, compliance costs in 2009 (measured as the number of minutes per establishment on the business register) were 31% lower than in the most recent high of 1999.

9 Departmental Performance Report

In its annual *Departmental Performance Report* to Parliament, Statistics Canada states that the extent to which the agency is able to achieve its strategic outcome of ensuring that Canadians have access to objective, high-quality, non-partisan statistics, statistical products, services and analyses which are relevant to policy formulation and decision makers and are responsive to emerging issues, depends on its ability to optimize its management and operations through organizational efficiency. As illustration of the agency’s culture of
commitment to its respondents, Statistics Canada explicitly lists the following as indicators of organizational efficiency:

- Number and percentage of business surveys using tax/administrative data
- Number of administrative records used in order to reduce survey sizes
- Response burden per establishment

Table 1 Use of Administrative Data in Lieu of Questionnaires

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of business surveys using tax/administrative data (number)</td>
<td>Continual increase</td>
<td>30</td>
<td>41</td>
<td>42</td>
<td>43</td>
<td>47</td>
<td>Met all</td>
</tr>
<tr>
<td>Percentage of business surveys using tax/administrative data (%)</td>
<td>14</td>
<td>19</td>
<td>19</td>
<td>20</td>
<td>22</td>
<td></td>
<td>Met all</td>
</tr>
<tr>
<td>Number of administrative records used in order to reduce survey sizes ('000)</td>
<td>55</td>
<td>61</td>
<td>269</td>
<td>298</td>
<td>303</td>
<td></td>
<td>Met all</td>
</tr>
</tbody>
</table>

Notes
1. The sharp increase in the number of administrative records used in 2007/2008 reflects the development of a new survey designed to make extensive use of tax data to derive a large portion of the estimate thereby allowing a smaller-sized sample survey and minimal response burden for the survey.

Table 2 Index of Average Response Burden Hours per Canadian Business Establishment

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Index of response burden hours (1991 = 100)</td>
<td>60 or less</td>
<td>62</td>
<td>62</td>
<td>63</td>
<td>63</td>
<td>68</td>
<td>Not met</td>
</tr>
</tbody>
</table>

Response burden hours: This estimate is calculated annually using the frequency of each survey, the average time to complete the questionnaire and the number of surveyed respondents. Dividing by the estimated number of Canadian businesses gives average burden per establishment. The average is indexed, to a base year of 1991. The calculation excludes the quinquennial Census of Agriculture.

Performance Results: Response burden has increased due to user requirements not covered by administrative data.

10 Government-wide Survey of Regulatory Compliance Costs

Separate from the data compiled by the Ombudsman, Statistics Canada conducted a Survey of Regulatory Compliance Costs for reference years 2005 and 2008. The survey was sponsored by the federal government to measure and provide a benchmark for the cost of regulatory compliance for small and medium-sized businesses in meeting key information obligations from various levels of government (municipal, provincial, federal). It focused on administrative compliance for twelve tax and regulatory requirements as identified by the client department, Industry Canada.
The latest results, published in 2010, showed that Statistics Canada’s mandatory surveys, one of the 12 information obligations included in the survey, represented only 2.6% of the total compliance costs, the lowest of the eight regulations that were the responsibility of the federal government.

11 Conclusion

Statistics Canada has many good response burden management practices already in place with plans to make even greater burden reductions. The agency is in the fortunate position of having access to a broad range of administrative data and has been able to use these sources to keep compliance costs lower than they would otherwise have been. Further improvement are not being undertaken just for the sake of greater organizational efficiency, but also as a way to honor the agency’s commitment to its respondents to continue to find innovative ways to reduce time spent completing surveys.

As has been experienced in the recent past, user demands for information that cannot be answered from existing administrative sources may put at risk goals of maintaining or reducing a target response burden level.

As sample sizes decrease through the increased use of administrative data, it is important to not lose sight of the potential for increased burden being placed on those units who, due to their size and complexity remain in survey samples, perhaps with even more data demands being placed on them.

If a National Statistical Institute is truly committed to burden reduction then it needs to know the level of burden being imposed and it needs to be interested in taking steps to monitor and manage it.

References