

# **Privacy Principles and Data Sharing: Implications of CIPSEA for Economic Survey Respondents**

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## **I. Introduction**

Historically, sharing data among federal statistical agencies has been limited by tight legal restrictions emphasizing the privacy and confidentiality of information provided by individuals and business entities. The safekeeping of confidential information submitted in good faith by the public deserves our full attention. However, it contributes to the already-significant burden imposed by our decentralized federal data collection system on business respondents in particular, especially for large companies that are continually selected for many different government surveys. In addition, some core items must be collected independently by multiple agencies conducting establishment surveys, in order to aid descriptive classification of establishments for summarizing or analyzing the data. A recent law intended to alleviate some of this accumulating burden on business survey respondents and improve the efficiency of the federal statistical system now permits limited sharing of data among three designated statistical agencies, one of which is the US Census Bureau.

The new law, along with existing laws, the Standards and Guidelines for Statistical Surveys recently proposed by the Office of Management and Budget (OMB), and the Census Bureau's own Privacy Principles, explicitly require survey programs to make respondents aware of the "planned uses" of the data they submit, and of the nature and extent of the confidentiality of the information they provide. Because of the new law, "planned uses" now includes the fact that collected business data may be shared with another agency. Since the new law permits data sharing only for business data, the Census Bureau's principles and policies must be applied differently for economic programs than they are for demographic surveys. The Census Bureau's implementation of privacy and informed consent policies in the context of its newly-legislated data sharing ability will be informed by research, the first steps of which are reported in this paper<sup>2</sup>. To provide a foundation for the development of a research program, we reviewed

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<sup>1</sup> This report is released to inform interested parties of research and to encourage discussion. The views expressed on methodological, technical, or operational issues are those of the authors and not necessarily those of the U.S. Census Bureau. The authors acknowledge assistance from various Census Bureau economic programs that provided materials to support this research, along with their feedback on our work. We also express gratitude for helpful review comments from Rita Petroni and, especially, Rochelle Wilkie Martinez and other members of the Census Bureau's Policy Office.

<sup>2</sup> While the focus of this paper is on informed consent messages in the context of data sharing, our research serves the dual benefit of providing a baseline of the current state of economic survey programs relative to the requirements of OMB's Proposed Standards and Guidelines for Statistical Surveys.

literature on what is known about informed consent message construction and household respondents' reactions to informed consent materials. We also reviewed a convenience sample of current Census Bureau economic survey programs' informed consent messages.

## **II. Background**

Intended to alleviate some of the burden arising from redundant data requests, the Confidential Information Protection and Statistical Efficiency Act (CIPSEA, 2002; incorporated into the E-Government Act of 2002) allows for business survey data to be shared among three designated federal statistical agencies – the Bureau of Labor Statistics, the Bureau of Economic Analysis, and the Census Bureau – under carefully prescribed conditions designed to uphold the confidentiality of the information. The three designated statistical agencies may share business data after entering into a written agreement specifying the data to be shared, the exclusively statistical purposes for which the data will be used, the agents of the receiving agency authorized to handle the data, and appropriate security protections to be put in place to safeguard the data. The law does not require agencies intending to share previously collected data to inform business respondents directly that some of their information may be provided to another agency; it is sufficient for the collecting agency to describe the terms of the agreement “in a public notice” after the data have been collected.<sup>3</sup>

However, CIPSEA, the Paperwork Reduction Act (1995), OMB's Proposed Standards for Statistical Surveys, and the Census Bureau's Privacy Principles all require that respondents be informed about “routine planned uses” of the data they are asked to submit. Insofar as the intention to share business data with another eligible statistical agency qualifies as a routine planned use of the data, then business respondents should be notified prior to collection of their data. Additionally, respondents should be made aware of the confidentiality protections in place in the eligible agencies involved in the data sharing agreement. Since sharing demographic data is not permitted, policies dealing with privacy and informed consent will need to take CIPSEA-enabled sharing of business data into account, and thus must be administered differently for economic survey programs than for demographic surveys. Specifically, the language of economic survey informed consent statements would need to meet the criteria outlined in such policies. Such statements will require careful crafting to avoid unnecessary concern for business respondents, for whom the data we request is often very sensitive and of great proprietary and strategic value.

## **III. Assessing the Implications of Data-sharing for Business Respondents**

Previous research into respondents' beliefs and concerns about the data they provide and the ability of the Census Bureau and other statistical agencies to uphold the confidentiality of that data provides a useful starting point for effective

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<sup>3</sup> U.S. Census Bureau Policy Office Legislative Fact Sheet, bill number H.R. 2458, P.L. 107-347, “E-Government Act of 2002”

communication with business respondents informing them that their companies' data may be shared. Respondents' beliefs about the sensitivity of their companies' data generally depend on the types of data being requested and on the characteristics of their companies and the environments in which they operate. Greenia et al. (2001) found that data believed most sensitive are those pertaining to employee's identities (though not the size of the staff roster) and financial information including payroll, operating costs, profits, and tax liabilities. Most respondents tend to consider such data sensitive for at most five years. Smaller firms generally seem to believe that financial information is much more sensitive than do larger firms, and smaller firms are consequently more concerned than larger firms about providing information to the Census Bureau and other statistical agencies, while multi-unit companies consider company-level data more sensitive than establishment-level data. Willimack, Nichols, and Sudman (2002) note that "businesses that are more dependent on their [external] environments, such as publicly-traded firms, have higher motivation to disclose information, while those that are insulated or in unregulated environments are more protective of information...Those in more volatile industries [or markets] were more protective of their data, because releasing information could result in a loss of competitive advantage" (p. 223).

In spite of these strictures, economic surveys conducted by the Census Bureau enjoy relatively high response rates compared with private sector surveys, owing substantially to the willingness of respondents and their companies to provide requested information. Willimack (2001) reports that respondents tend to trust Census Bureau pledges of confidentiality, but also notes that much of the data they report tends to be publicly available anyway. Business respondents tend to place more importance on reporting burden than on concerns for the confidentiality of the information they report. Nichols and Willimack (2001) observe that business respondents often have to prepare duplicate reports and, in the words of one respondent, different statistical agencies ask for "the same data five different ways." Redundant external data requests, especially for larger firms, appear to make the prospect of data sharing by designated statistical agencies preferable. Larger companies show a slightly higher rate of support for data sharing than small to mid-size businesses, suggesting that above a certain threshold, concerns for response burden outweigh concerns about data sharing (Willimack 2001). In fact, most of the business respondents surveyed by Greenia et al. (2001) believe that Federal statistical agencies already share data freely among themselves.

Nichols and Willimack (2001) report that business respondents have definite ideas about conditions they would find acceptable for data sharing. First and foremost, data sharing must reduce reporting burden. Strict security pledges must be in place, describing both data protection procedures and the individuals and agencies with access to shared information. Agencies must keep respondents abreast of changes in data-sharing arrangements. Perhaps most importantly, respondents say they must be able to restrict access to certain

agencies, particularly the Internal Revenue Service, and the purposes for which shared data are used. Clearly, the concerns of respondents must be thoroughly understood and systematically addressed in order to reassure respondents and maintain their cooperation.

Some findings from research with household survey respondents can inform our discussion of the impact of data sharing on business surveys. Bates (2003) studied alternative requests for permission from household respondents to use their social security numbers for linking to administrative records received from another Federal agency to obtain data for statistical uses, a procedure intended to reduce the burden on respondents. She found that some respondents likely misunderstood the logistics of the administrative data acquisition procedure as communicated in the informed consent messages, and that some thought that the Census Bureau was asking for their permission to share their answers with other statistical agencies. Other research has found that some respondents have a difficult time believing that the flow of data is one-way, only from the supplying agency to the Census Bureau, and not two-way, thinking that the government already has access to their personal information and it is shared among agencies anyway (Landreth 2003b). Some business respondents share these beliefs (Greenia et al. 2001). The difficulty in clearly communicating these kinds of concepts is pertinent to the construction of informed consent messages about data sharing in the business survey context.

When reading advance letters and other materials accompanying or associated with surveys, household respondents tend to look for “one or two highly salient, diagnostic pieces of information” to help them decide whether or not to participate in the survey (Landreth 2003a: 4). They often stop reading a cover letter, for example, and cease cognitively processing the request it contains when they feel they have gotten enough information upon which to base a decision.

One study identified several questions asked by household respondents that affected their decision whether or not to participate in a survey (Landreth 2002):

- What is this and what is it used for? (i.e., What information is being requested and what is the purpose of the survey?)
- Who is doing the survey?
- How will my information be handled? (e.g., planned uses, confidentiality protections)
- How was I chosen?

Providing satisfactory answers to these questions may encourage respondents to cooperate with data collection. On the other hand, other questions often asked by respondents which, when answered unsatisfactorily, gave them sufficient reason to refuse to participate:

- How long will this take?
- Is this voluntary?

The Census Bureau's survey programs are required by law and by agency policy to provide answers to these questions, as part of the Federal government's commitment to fairness and openness with regard to the individuals and organizations who provide the information we request. Landreth concludes that care must be taken to construct messages that satisfy respondents' concerns, but that do not overly sensitize them to or allow them to fixate on any issues of likely concern, such as confidentiality and data-sharing, at least not before they have had a chance to process more persuasive elements.

#### IV. Assessing the Implications for Census Bureau Economic Surveys

This section summarizes the findings of an evaluation of informed consent messages that currently appear in selected self-administered Census Bureau economic survey mail-out packages. Our evaluation was conducted to provide a baseline understanding of the ways in which informed consent information is currently presented, both in terms of the range and depth of presentation and as a means of inferring the strategies that survey designers employ in their informed consent communications. This analysis is guided by generally accepted survey design standards and research into cover letter construction. A generic economic questionnaire front page from Statistics Canada was also reviewed for sake of comparison.

#### Methodology

**Sample:** We gathered a convenience sample of questionnaires, cover letters, and other mail-out materials for thirteen separate survey programs, some with multiple versions (e.g., versions of the 2002 Economic Census for five sectors). The survey programs included in our review are listed in Table 1.

Table 1: Sample of economic survey programs

<u>Program</u>	<u>Frequency</u>	<u>Mandatory?</u>
Economic Census	Quinquennially	Yes
Survey of Business Owners	Quinquennially	Yes
Annual Survey of Manufactures	Annually	Yes
Annual Retail Trade Survey	Annually	Yes
Current Trade Report	Monthly	No
Construction Project Report	Monthly	No
Report of Privately-Owned Residential Building or Zoning Permits Issued	Annually	No
Quarterly Services Survey	Quarterly	No
Vehicle Inventory and Use	Annually	Yes
Quarterly Financial Report	Quarterly	Yes
Annual Capital Expenditures Survey	Annually	Yes
Survey of Industrial Research and Development	Annually	Yes
Manufacturing and Energy Consumption Survey	Annually	Yes

**Materials:** The selected survey packages typically consist of a survey form and a cover letter. Cover letters are typically one page in length, containing five to six paragraphs. Eight packages include separate instruction sheets and/or FAQ

(Frequently Asked Questions) sheets containing informed consent information, which are also included in this analysis.

**Evaluation Criteria:** Survey packages were evaluated on the basis of:

- Their compliance with criteria derived from the Census Bureau’s Privacy Principles, a proposed informed consent policy, the Privacy Act (1974) and the Paperwork Reduction Act (1995) – summarized in Table 2 below;
- Topics we hypothesize to be of concern to business respondents;
- Information found to be critical to household respondents for making a decision to participate or not, based on research with household respondents.

Table 2: Evaluation criteria taken from the Privacy Act and the Paperwork Reduction Act

<u>Criteria</u>	<u>Privacy Act</u>	<u>Paperwork Reduction Act</u>
Legal authority for data collection	X	
Purpose for data collection	X	X
Planned uses of data	X	X
Voluntary/mandatory indication	X	X
Confidentiality precautions, citing legal authority	X	X
Estimated average number of burden hours	X	X
Contact information for the Census Bureau	X	X
Request that the public contact the Census Bureau to comment on the burden estimate and suggest ways to reduce the burden	X	X
Valid Office of Management and Budget (OMB) control number and a statement describing this requirement for authorized collections of data	X	

It should be noted that the Privacy Act applies only to business data collected from individuals. The Census Bureau imposes additional informed consent requirements on its economic survey programs beyond those required by law, which have been incorporated into the proposed informed consent policy.

It is important to distinguish between the *purpose* of a data collection and the *use* of the data once it is collected. The purpose of a data collection is the utilization of the data once it is published in statistical summaries, e.g., used by Congress to inform policy-making decisions. Uses of the data include such intra-agency procedures as processing, frame building, and publication, and inter-agency procedures as administrative data acquisition and data sharing.

In addition to the above legal criteria, we hypothesized that some other topics may be salient for business respondents, based on Landreth’s (2002) household research and on the authors’ experience with business respondents, namely:

- Due date
- Types of information the survey asks for
- How or why a respondents' company is selected

Other information we hypothesized to be salient on the basis of research with household respondents is described in Section III.

## Results

### A. Due Date, Legal Authority, Mandatory/Voluntary Statements, and Confidentiality Precautions

When people in Western societies read information on a page, they tend to follow a particular navigational path, beginning at the top left, reading items horizontally from left to right, and returning to the left margin to scan down to the next item (Dillman 2000: 113). Therefore, information placed in the top left quadrant of a page tends to be attended to first by a reader. The attention of people raised in the West can also be attracted by visual elements, especially large and bolded print, and drawn to particular parts of the page (Dillman 2000: 106).

We infer that designers of Census Bureau economic survey forms typically employ these visual design tactics to increase the likelihood that respondents will be aware of several key informed consent elements: the *date* by which the survey should be returned; a statement describing the *mandatory* nature of the survey, when applicable; and a description of the practices by which the *confidentiality* of reported data is maintained. Mail and telephone *contact information* for assistance with the form is also universally placed in this prominent location. These well-placed pieces of information are likely the most effective in persuading respondents to complete and return their survey forms. Their importance is also evident from their repeated presentation in additional places, i.e., in cover letters, separate instructions, and FAQs, and their frequent emphasis with large or bold print in those locations.

**Due date:** The due date is not placed in exactly the same location on every form, but it is always in the upper left quadrant. Although on many forms this area tends to be “cluttered” with text and non-text information, the due date appears to be well placed for getting respondents’ attention.

**Legal authority:** Legal authority for survey collection is generally not cited *per se*, but is usually cited in reference to a legal mandate and legally prescribed confidentiality protections. One exception is the Survey of Business Owners (SBO). On the back of the cover letter for the SBO are printed five excerpts from various sections of the U.S. Code pertaining to the authority to conduct the Economic Census and collect other statistical data, etc. Citation of legal authority in this case may be useful as a means of persuasion, in that it may lend greater credibility and authority to the form, which collects, among other data, race, ethnicity and gender of business owners; such personal information is atypical of many other government-sponsored business surveys.

**Mandatory/voluntary indications and confidentiality precautions:**

Indications of whether a particular form is mandatory or voluntary and statements describing ways that confidentiality is maintained appear within the survey forms themselves, in the cover letters accompanying the forms in the mail-out package, and often in supplemental materials, like FAQ pages, as well. In particular, mandatory indications and confidentiality precautions appear to be the most important information conveyed by survey designers, judging by their prominence and their presentation in multiple places in survey packages. The packages we reviewed vary in the number and types of statements they present describing reporting conditions and data protections.

*Survey Forms*

On the survey forms in our evaluation, mandatory and confidentiality statements are usually combined into the same paragraph. Typically, such a paragraph contains one statement indicating mandatory reporting, and another one to three statements describing confidentiality protections. All the mandatory forms we evaluated indicate the reporting requirement on the front page of the form. If a form is voluntary, then only the confidentiality protections are mentioned in the paragraph on the front page of the form (described in detail below). Of the four voluntary survey forms we evaluated, only one indicates on the form itself that it is voluntary; the other packages present this information in cover letters.

Combined mandatory/confidentiality statements on mandatory surveys are usually displayed fairly prominently on the front page of the form. Most often they are located directly below the address label, spanning the entire width of the page with key statements in bold. Sometimes they are found above the address label or in the column to the right of the address label. The following is a typical paragraph, both in terms of the verbiage and the visual appearance:

**YOUR RESPONSE IS REQUIRED BY LAW.** Title 13, United States Code, requires businesses and other organizations that receive this questionnaire to answer the questions and return the report to the U.S. Census Bureau. By the same law, **YOUR CENSUS REPORT IS CONFIDENTIAL.** It may be seen only by persons sworn to uphold the confidentiality of Census Bureau information and may be used only for statistical purposes. Further, copies retained in respondents' files are immune from legal process.

There are two exceptions among our convenience sample of survey programs. One form presents a somewhat lengthier paragraph, citing several specific laws in addition to Title 13, reflecting sponsorship of the survey by another government agency. On the other, the mandatory and confidentiality statements are split into 2 paragraphs located separately, one for confidentiality, the other for mandatory authority. The content of both is essentially the same as that displayed above.

The manner in which the voluntary surveys we reviewed address confidentiality is similar to the mandatory surveys, except that they have a single paragraph emphasizing only the confidentiality protections. These paragraphs are



otherwise the same as the mandatory paragraphs, lacking only the first line. One form includes no statement addressing confidentiality, because it asks for building permit information from public officials, and that information is a matter of public record.

### *Cover letters*

As on the forms themselves, mandatory statements are generally among the few items emphasized most strongly in cover letters, mainly through the use of bold-print, which may be quite eye-catching for respondents. Other bold-printed items in cover letters tend to include due dates, confidentiality statements, telephone numbers for assistance, and indications that “estimates are acceptable.” Bold print items appear to be the few items most urgently communicated to respondents by survey designers; their importance is also evident in their repetition across survey package components. Three of the four voluntary surveys in our sample made reference to their voluntary nature in the body of the cover letter; the fourth, as noted above, indicates it in the form itself.

### *Supplements*

Several survey programs include supplemental materials in the way of FAQ sheets or separate instructions that repeat or elaborate (to some degree) on informed consent information.

### *Confidentiality protections – tallies, types*

Statements describing the ways that the confidentiality of respondents’ information will be protected are fairly uniform across the packages that we evaluated, with some variations. The three most common confidentiality protections (below) typically appear together in most of the packages:

- “Your report will be seen only by persons sworn to uphold confidentiality of Census Bureau information.”
- “Your report will be used only for statistical purposes.” Or “Your data will be summarized” or “aggregated.”
- “Copies kept in respondents’ files are immune from legal process.”

The phrase “statistical purposes” in the second bullet above is the preferred language adopted by the Census Bureau’s Economic Directorate, and its variants presumably are older statements that are yet to be updated (Martinez 2005). A few additional statements found in the evaluated packages are:

- “No individual establishment, firm, business, etc, or its activities may be identified.”
- “Census Bureau publications summarize responses so that the confidentiality of respondents and their business activities is fully protected.”
- “Your reported data are exempt from requests made under the Freedom of Information Act.”

The presentation of these confidentiality points varies quite a bit across our selected survey programs. Eight survey packages had at most three pieces of information about confidentiality in either the form or the letter. The survey collecting data of public record contains no confidentiality statements. The remaining four survey packages have four or more confidentiality points in various parts of the packages (form, letter, etc.). One has five points in the letter. Another has four in each of two parts, one part consisting of excerpts from sections of the U.S. Code on the second page of the cover letter and the other a two-page FAQ. The other two surveys have four each in a single section. These variations in the presentation of confidentiality elements may be due to the survey designers' differing perceptions of the strength of confidentiality assurances necessary to ensure participation. We suggest these be tested for their efficacy in reassuring respondents and encouraging cooperation.

## **B. Elements found in the OMB Burden Statement**

Response "burden statements" are required by the Paperwork Reduction Act and by the Office of Management and Budget. These are fairly uniform across survey programs, containing four informed consent elements (listed below). They typically appear at the bottom of the last page of the form or in separate instructions, but may also appear on the front of the form, in an FAQ section, on the back of a cover letter, or in the text of the letter itself. The burden statement contains the following standard items:

- **Estimated time of completion:** This statement lists a range of times and the average.
- **Contact information for the Census Bureau:** Census Bureau contact information is fairly prominent within the burden statement, and usually contains an email address and a postal address.
- **Statement requesting public to comment on accuracy of burden statement and ways to reduce burden to Census Bureau**
- **Valid OMB number and statement describing the requirement that survey forms display a valid OMB number**

## **C. What do Census Bureau establishment survey designers seem to think are salient items for respondents?**

Survey designers appear to devote the most prominent locations on questionnaires, letters, and other materials to information believed to be most persuasive in order to maximize their effectiveness in encouraging respondents to participate in the surveys. Mandatory reporting, confidentiality protections, and legal authority are communicated in multiple places (i.e., on forms, in letters, and in supplemental materials) and are often emphasized using bold print. Typically these are combined in a single paragraph, with one sentence citing the law that makes reporting mandatory, and two or three others elaborating confidentiality protections. Two "summary" lines in the paragraph, indicating mandatory reporting and confidentiality are bolded to draw attention to and emphasize these

two important features. Contact information is also repeated on the form and other materials, apparently encouraging respondents to call with any concerns, questions, or problems, rather than disregard the survey.

Front pages of survey forms universally present several pieces of information:

- Name and form number of survey
- Due date
- Identification of agency sponsoring/conducting the survey (though this information, in the form of a logo, is often understated, perhaps to the point of being “invisible” to respondents)
- Contact information
- OMB approval number in upper right corner (required by OMB regulation)
- Legal authority, mandatory, and confidentiality statements

Most prominent on the front pages are the survey name, due date, return address, telephone number for assistance, and mandatory/confidentiality statements, which appear in larger and/or bold print and stand out against small/plain print. These may be the necessary elements which designers want to ensure that respondents see, because they are the most critical for the purposes of persuading respondents to fill out the forms, telling them where to send completed forms, and helping them solve any problems they may encounter.

Cover letters typically relate:

- A brief, general description of the purpose of the survey;
- Due date;
- Legal authority, mandatory/voluntary statement, confidentiality protections, usually citing Title 13 of the U.S. Code;
- Brief, general description of data uses, particularly as they relate to confidentiality protections;
- Contact information;
- The Census Bureau as the agency conducting the survey (usually identified either in text of letter or by the letterhead).

Other supplemental materials like FAQ pages provide additional space to devote to details about information already mentioned elsewhere. Sometimes these supplements are the location of information not placed elsewhere, like OMB burden statements, meeting requirements that these be addressed in survey materials.

Laws and policies prescribe which specific pieces of information must be communicated to respondents, but not the sequence (from a cognitive perspective) in which they are presented. This means that Census Bureau survey designers are able to exercise some discretion in their presentation of informed consent criteria. Among the economic survey materials we reviewed, required elements of informed consent are presented in such a way that respondents are more likely to find and process positive and persuasive statements first and potentially discouraging statements afterward as they peruse

the survey package materials. This seems a judicious use of discretion, considering the Census Bureau's commitment to fulfilling legal and ethical requirements while at the same time carrying out its mission of providing complete and accurate statistics about the nation's economic activities.

Additionally, the potentially dissuasive effect on respondents of certain kinds of information may be mitigated by co-mingling it with other, more positive information. Two pieces of information are typically presented this way: estimated amount of time for completing the questionnaire, and an indication of voluntary response. The salience of these particular items for business respondents is not clear. In our experience, business respondents often assess the time and effort required to fill out a questionnaire by scanning through it, so they may tend not to look for a statement estimating the completion time. Insofar as many respondents assume that government surveys are mandatory, they may not be likely to look for an indication that the questionnaire in front of them is voluntary. These points notwithstanding, such approaches to design as strategic sequencing and co-mingling serve to de-emphasize potentially dissuasive pieces of information, while keeping with the Census Bureau's Privacy Principles. Alternative strategies motivated by the Landreth research need to be investigated with business respondents before implementation.

#### **D. How do salient items of survey designers correspond or fail to correspond with items salient for respondents?**

Previous research on household survey respondents (Landreth 2003a, 2002) and our own experience with business respondents suggest several concerns business respondents may have when considering whether or not to comply with a survey request (see Section III). We compared the survey program packages in our sample to these hypothetical criteria:

**What information is being asked?** Only two survey packages explicitly provide indications of what kinds of information they request. One example is the letter accompanying a voluntary questionnaire that measures building construction activity. The letter describes the types of information asked on the initial form and on subsequent forms; the initial form requests details about a particular project, and asks on a monthly basis thereafter only for a single figure on the value of work completed in the previous month. This somewhat lengthy letter apparently attempts to mitigate what may be obvious and negatively salient information, namely that the survey is voluntary and that it appears burdensome.

The Survey of Business Owners (SBO) describes in great detail on a separate FAQ sheet the kinds of information the form collects and why the information is requested. The SBO actually has much in common with demographic surveys, in that it asks for information about business owners' race and ethnicity. Individual racial/ethnic information may be sensitive for respondents, and potentially more suspicious when requested at the same time as the individual's business information. Therefore, the great amount of detail about legal

authorization, confidentiality protections, and the purpose of the survey, among several other items, may be offered in order to assure respondents that their information will not be used for purposes that may be harmful to them.

As for the remaining survey packages, statements explicitly identifying the types of information requested in the questionnaire are not included in the materials that accompany and introduce their questionnaires. The lack of such statements may suggest that survey designers believe that other text (e.g., the title of the survey) communicates this information or that its pertinence is outweighed by other factors, such as authority. We believe that this assumption should be tested.

**What is the purpose of the survey?** Several survey cover letters give a general description of the purpose of the survey, mainly in terms of which parties inside and outside of government will make use of the statistical data and how. An example from the Current Trade Report follows:

The summary data compiled from this survey are used by the government to make economic policy decisions and as input to the Gross Domestic Product (GDP). In addition, government agencies, market research firms, universities, and businesses use the summary data for planning and decision making.

Statements of purpose tend to be linked with appeals to business respondents' or their companies' self-interests, civic duty, etc. Whether these statements are sufficient to satisfy respondents' curiosity or concerns is a subject for testing.

**Who is conducting the survey?** The Census Bureau's identity is often de-emphasized on survey forms, letters, and other materials. The agency is mentioned by name in some letters, and some letters have the "U.S. Census Bureau" watermark at the bottom. The letterhead at the top of some letters contains the same design found on forms, in which the Department of Commerce is most prominent, and the Census Bureau is subordinated to the Department and to the Economic Statistical Administration. On forms and letters, "U.S. Census Bureau" in this design is of the smallest print, not at all prominent or memorable. This may contribute to business respondents' general perception of "the government" as a single undifferentiated body, and their categorization simply of "Department of Commerce" forms, as was observed by Sudman et al. (2000).

**How will my information be handled?** This question corresponds to the informed consent elements "planned uses" and "confidentiality precautions," which are typically co-mingled in survey packages. Descriptions of planned uses are generally limited to the phrase "statistical purposes," although a couple of letters mention publication of aggregated or summarized responses. Whether these very basic descriptions are satisfactory for business survey respondents is an open question and should be explored in testing.

**How/why was our company selected?** Cover letters for a few surveys describe, in very general terms, how companies are selected for the survey (e.g., “identified from public records,” “scientifically selected sample,” “selected at random”). These statements tend to be mingled with persuasive elements indicating that asking for information only from a sample of companies “reduces survey cost” and generally reduces the burden on businesses, and at the same time increases the importance of individual (representative) responses.

For other items we hypothesized to be salient (voluntary/mandatory indications, confidentiality precautions, time estimates, contact information), their relative importance and the most effective or satisfactory configurations should be researched with business respondents.

## **E. Evaluation of Statistics Canada Informed Consent Content**

In the United States, which has a decentralized statistical system, confidential data cannot be shared across statistical agencies without legal authority. In Canada’s centralized statistical system, that authority is manifested quite differently, since collected data are “owned” by a single statistical agency, rather than many. That data may be “shared” for statistical purposes is intrinsic; however, data-sharing agreements exist with outside agencies as well (e.g., provincial statistical agencies).

Because of this contrast between our statistical “cultures,” we reviewed a generic front page from Statistics Canada business surveys using the same criteria applied to Census Bureau survey packages, in order to see if their approach might offer some useful insight into informed consent message construction. The lower half of the front page of Statistics Canada business surveys is devoted to the presentation of informed consent elements, including:

- Survey purpose
- Coverage (i.e., scope of survey)
- Data-sharing agreements
- Confidentiality
- Return of questionnaire
- Disclosure of risk in using fax or other electronic transmission to submit reports

The front page, which contains only informed consent-type information with no survey data items, is thus a standardized preliminary step to completing the survey. Items corresponding to the Census Bureau’s informed consent elements appear prominently; several are clearly presented in a two-column matrix format.

Several of the apparently more salient elements are accompanied by brief, concise descriptions or explanations. For example, the description of “Survey Purpose” makes a direct link between the types of data collected in the questionnaire and their policy uses. The section on “Data-sharing Agreements” emphasizes in bold print that “Your responses are not shared with Canada Customs and Revenue Agency,” but offers little detail about the specifics of data-

sharing arrangements aside from the fact that they do exist between Statistics Canada and provincial and territorial statistical agencies; any data shared are only used for statistical purposes. It is interesting to note that the explanation associated with “Confidentiality” differs from the Census Bureau in that Statistics Canada is the subject of the sentence, i.e., “Statistics Canada is prohibited by law...,” whereas in Census Bureau confidentiality statements, it is usually “your report” that is confidential by law. The mandatory indication and legal authority appear in the upper right corner of the survey front page, to the right of the Statistics Canada emblem and the name of the survey, and they are printed in small, but bold, print compared with other text on the page.

## **V. Conclusions**

We derive two important conclusions from our analysis of economic survey program materials. As with household surveys, designers of economic surveys appear to emphasize informed consent elements of presumed positive salience and to de-emphasize elements perceived to be discouraging to respondents. Making persuasive elements prominent and negative elements less so may help to increase the likelihood that respondents will complete and return questionnaires. Further, the designers appear to mediate any potentially harmful impact of negatively salient items by co-mingling or embedding less appealing information within more positive elements and thereby “softening the blow.” By promoting and “mixing” information in these ways, designers seem to believe that it will increase the likelihood that indecisive and reluctant respondents will be able to find the “one or two highly salient pieces of information” that help convince them to participate before they find other, less positive details – the strategy used by Census Bureau field representatives when asking potential respondents to cooperate with a survey (Landreth 2003a). This approach makes intuitive sense, but it is essential that survey designers have a thorough understanding of the beliefs and concerns of their respondents in order to make the most effective use of it.

## **VI. Future Research**

The information reported in this paper documents typical informed consent practices currently used in a small number of the Census Bureau’s economic programs. It forms a baseline from which to develop informed consent messages addressing the requirements of CIPSEA and to evaluate their effectiveness. Nevertheless, additional research is needed to guide the Census Bureau’s implementation of policies that relate to CIPSEA.

First, it would be useful to compare the informed consent practices of other statistical agencies and their economic surveys’ participation rates, to look for clues as to the impact of particular forms of informed consent message construction and any areas of potential sensitivity. Paired with findings from demographic survey research on privacy and informed consent, these results provide a basis for drafting informed consent messages for business surveys.

However, potential data sharing under CIPSEA adds a new dimension to informed consent not previously addressed by household survey research, or, for that matter, business survey research.

Thus, future research must attempt to gain insights from the perspectives of business survey respondents and investigate their views of data sharing in the context of privacy and informed consent. Specifically, what concerns will business respondents have with regards to sharing data, in terms of the types of data shared, the agencies involved, confidentiality protections, and other specific procedures? How might business respondents – and business surveys – be affected by informed consent messages about data sharing? What is the most effective way to construct messages that communicate data sharing in a manner that addresses these issues, relieves respondents' concerns, and minimizes any potential negative impact on their cooperation? Indeed, research on privacy by Singer (2003) and Gerber (2001) demonstrates that, while we must be concerned about appropriate formulation of messages communicating the various elements of informed consent, they can be expressed in a reassuring manner.

Moreover, future research might also attempt to relate informed consent issues in business surveys with those in household surveys, in order to identify consistencies between the two as well as points of departure. For instance, research should also investigate informed consent messages vis-à-vis typical attributes of business surveys, such as establishment-level versus company-level data, respondent identity and authority, and variation in size and industry affiliations of companies.

It is our intent that the baseline information presented here provides a foundation supporting future research. Results may then be used to guide decisions about implementing informed consent practices among the Census Bureau's economic surveys of businesses, institutions and organizations.

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