

A QUALITATIVE STUDY OF NONRESPONSE FACTORS AFFECTING BLS ESTABLISHMENT SURVEYS: RESULTS

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KEYWORDS: Establishment surveys; survey nonresponse; qualitative research

Introduction

Surveys of businesses, organizations, and institutions—so-called “establishment surveys”—provide key data for some of the Nation’s most important measures of economic health. However, the quality of the data depends on respondent cooperation; thus, survey nonresponse is a major challenge for a survey. Increasing concern about this challenge to the data quality of its establishment surveys led senior management from the Bureau of Labor Statistics (BLS) to charter a team in 2001 to conduct qualitative research on the scope of the problem. Fox et al. (2003) describes procedures used by the team to carry out its charter. This paper reports the major findings of the qualitative research.

The team collected a wide variety of qualitative data about factors judged to have the potential to affect nonresponse in four recurring BLS establishment surveys: the Current Employment Statistics (CES) survey, the National Compensation Survey (NCS), the Producer Price Index (PPI) program, and the International Price Program (IPP) program. Briefly, CES collects five to seven employment data items each month. In NCS, two-thirds of the sample report annual wage data, and one-third provide quarterly data on both wages and detailed benefits. The PPI and IPP collect the prices of a selected list of items monthly.

The surveys vary on a number of important characteristics (e.g., frequency of reporting cycles, data elements, and collection modes) and, consequently, impose different levels of burden. These surveys were purposely selected so that qualitative feedback could be obtained on several factors, including those not under the control of survey managers. These surveys all have a panel design, in which BLS returns to the same establishment and collects data each survey cycle for varying numbers of cycles. Additional information about these survey programs appears in Fox et al. (2003).

The project team gathered qualitative data from personal interviews and focus groups involving national and regional office staff. Data collection

concentrated on the seriousness of the overall nonresponse situation, tools available for measuring nonresponse in each survey, the effects of various types of nonresponse, and information suggesting possible data collector¹ or mode effects on nonresponse. The team also interviewed employees from a small number of each survey’s sample establishments, to discover why some establishments choose to participate, while others do not.

External Factors That Influence Nonresponse

External environmental factors: Three groups of factors outside of agency control influence survey nonresponse: external environmental attributes, features of the sample unit, and characteristics of the designated respondent. Willimack et al. (2002) posit the survey-taking climate, the economic environment, and legal and regulatory requirements as relevant attributes of the *external environment*. Indeed, the survey-taking climate surfaced repeatedly during this study, particularly with reference to accessing the sample unit and actually requesting the data.

The importance of current economic conditions was also documented. The team heard frequently about the effect on survey response of downsizing, mergers, and acquisitions. Often BLS respondents are administrative personnel in Human Resources departments. Many of these departments have experienced reductions in staff, which leave remaining staff with less time for their daily tasks and, consequently, with less time to provide data for government surveys. Similarly, the economic climate has generated an increasing number of mergers and acquisitions, which can affect nonresponse in several ways. Former reporters may be acquired by and integrated into larger firms, thereby increasing the amount of data reported for the combined firm. At least partly due to mergers and acquisitions, employees at the combined firms are increasingly busy and unwilling or unable to accept additional tasks. Finally, either the acquiring or

¹ For purposes of this paper, the term “data collector” refers to CES telephone interviewers, field economists working out of Regional Offices who initiate new sample units to the IPP, PPI, and NCS programs, and industry analysts who collect current price data from the BLS National Office in Washington, DC.

acquired organization may refuse to participate, thereby eliminating a former respondent.

Another factor affecting response involves legal and regulatory requirements. Most BLS surveys are voluntary, and the effect of voluntary collection on BLS establishment nonresponse is generally negative. While mandatory reporting has been shown to reduce nonresponse, even mandatory surveys may have few or no enforcement provisions or penalties to encourage reporting. This effect operates through characteristics of the sampled businesses, particularly policies against participating in voluntary surveys. The establishment's policy regarding voluntary surveys is often driven by burden and resource issues (Willimack et al., 2002), but may also result from anti-government perspectives on the part of the business owner or manager, or management concerns about data confidentiality and fears that competitors will acquire sensitive information.

Business factors: The second general external factor affecting establishment survey nonresponse, as identified in the Willimack et al. (2002) model, is *the business*, i.e. the sample unit. These authors consider the availability of data (dependent on business characteristics and other variables), the extent to which an organization interacts with outside organizations (a concept described as “environmental dependence” by Tomaskovic-Devey et al., 1994), company policy, and availability of resources as factors in the decision to participate in a survey or not. The BLS team's findings support the importance of several of these variables.

Getting past a gatekeeper has become more challenging for data collection staff. Call screening, voice mail, and automated call systems requiring a specific telephone extension increase time needed to reach the correct person, particularly in larger firms. Occasionally, a data collector may make an unannounced personal visit to a respondent who does not return calls, and may be rewarded with an interview—or unceremoniously shown the door. Data collectors report the latter outcome has become more common since many companies began instituting more extensive security measures.

Data availability is another case in point. Whether a business can supply the data requested by BLS, in the format requested, and within the specified time frame, depends to some extent on the size and complexity of the organization, which influences the location and content of records. The frequency and timing of data requests are also factors in availability, as BLS deadlines may not coincide with the respondent's

record-keeping procedures. Establishment size is another consideration, both at first contact and during later data collection cycles.

The use of third parties to maintain and prepare records is another factor affecting the availability of data that can contribute to nonresponse. Many establishments turn to service bureaus or accountants to maintain administrative records containing information needed for some BLS survey requests, and do not have that data immediately at hand. Third parties may bill the sample establishment for providing data, which tends to be a barrier to survey participation. Meeting survey deadlines may also be problematic given a respondent's need to contact a third party.

The decision to participate is affected by several factors, including the respondent's attitudes towards the government, whether the establishment recognizes the existence and value of a survey's products, and the source of the data. According to data collectors, some respondents perceive duplication among data requested for different surveys. In addition, some respondents who could use BLS data actually obtain data from other sources. The overall effect of these factors is to discourage response.

Respondent factors: The third group of external factors that shapes survey response is respondent-specific. The individual respondent's position in the organization will vary from establishment to establishment. As described initially by Tomaskovic-Devey et al. (1994), the respondent must have the authority, capacity (knowledge and access to data), and motivation to participate in a survey. Authority is definitely a factor in refusals. Data collectors for all of the surveys noted that hearing a “no” from the president, CEO, or from the company's lawyers was a “hard” refusal and not one that was likely to be reversed.

Discussions with data collectors identified a number of characteristics that can be attributed to capacity to respond. Good respondents say they can produce data for a survey, often asking questions or seeking clarification to ensure they are reporting correctly. They may be at larger companies with more sophisticated information systems. Respondents who are timely reporters and prepared for an interviewer demonstrate a high level of motivation, while those who work in establishments where staff resources are limited, who report concerns about additional work, or who need to be “prodded” by an interviewer tend to be less motivated to respond and are not very good reporters.

Data collectors tell us that motivation is often negatively affected by burden, especially after respondents have been in sample for some period of time. While businesses do not always refuse outright, some respondents use voice mail and other means to avoid the interviewer. They may promise to call the interviewer back, but fail to do so. Many data collectors believe that reluctant respondents at some firms agree to participate in a survey just to get the data collector to stop bothering them. Therefore, they may report during an initial contact and stop reporting after one or two data collection cycles.

Internal Factors That Influence Nonresponse

Internal factors refer to those features of the survey process that are largely under the control of BLS, including the survey instrument itself, associated data collection processes and procedures, internal efforts to communicate information about policy and procedures, and agency-driven efforts to market BLS products to users and respondents.

Response mode. To encourage response, BLS surveys have increasingly offered establishments multiple modes of reporting, and are moving toward offering electronic reporting options as well. While respondents can then participate as they choose, there is some evidence that increased reliance on respondent-initiated reporting has a negative effect on overall response rates. For example, the Current Employment Statistics Program offers respondents CATI, fax, Touchtone Data Entry (TDE), mail, and the Internet, while other surveys offer electronic file reporting options as well as e-mail. CES was originally based on a quota sample, where nonrespondents were simply replaced and no true response rate measures were possible. With the recent switch to a probability-based sample, managers discovered nonresponse among TDE reporters was 30 percentage points higher than for CATI, even after numerous reminders to prompt reporters to call in their data. Switching these cases back to CATI addressed the problem, but added dramatically to data collection costs.

Marketing. On some surveys, field staff work with specially-trained regional office staff to develop customized BLS data products that can be offered to prospective respondents during the initial contact. This provides establishments with an incentive to participate and offers a concrete example of how the data are used. Generally, a simple principle applies. The more timely the data, the more useful and relevant to the user, and the greater the motivational value.

Response burden. The perception of burden may be as important as the actual level of burden itself.

Respondents' perception of burden can be affected by many things, but time in sample (some establishments are in a survey for years), the length of the interview (or number of separate reporting items), and apparent duplication across BLS and other government agency surveys seem to be the most critical factors for determining initial and continued participation.

In addition, differences in what is asked initially of potential respondents can affect willingness to cooperate. For example, the first CES contact is a request to participate, while in other programs, the respondent has to produce something (e.g. product descriptions) or participate in some type of probability selection activity. Data collectors are given leeway to negotiate with respondents over what data are collected during initiation. There are also differences in degree of burden associated with BLS data requests. Some data are much simpler to provide than others.

There seems to be a relationship between burden and establishment size, such that small establishments may stop responding because they have limited staff and time to report. They also are more likely to believe their small numbers will not affect survey estimates. Accordingly, small firms or firms where the data rarely change were identified as difficult respondents, because field staff have difficulty persuading respondents that "no change" is an important economic outcome that needs to be measured. By contrast, large establishments and those reporting for multiple work units, have additional burden because they must compile data across units, but they also have more complex information systems to better access their data. Furthermore, establishments that are dominant within an industry often face a significant burden from a number of survey organizations that tap them for information.

A special concern is reserved for certainty units in establishment samples. Certainty units are business entities that represent a significant portion of the economic activity in an industry or geographic area. Because of their importance, certainty units tend to be sampled for many surveys at BLS and at other government agencies. Burden is a major concern for these businesses. The survey programs have initiated new and expensive procedures to introduce the survey to these establishments and to obtain their cooperation (e.g., personal visits instead of telephone contact, or communications from BLS managers). These procedures are likely to be more effective if they are accompanied by a formal endorsement of the survey by an industry association. Arrangements such as electronic data interchange may be offered for some surveys instead of more traditional data collection

procedures. In addition, some burdensome surveys such as NCS go the “extra mile” by having the data collectors do much of the drudgery of looking up and recording the data if the company will give them access to “the books” and a quiet place to work.

Nature of data requested. The nature of the data being requested is another factor associated with data availability; sometimes surveys ask for information not present in employer records. For example, the CES requests counts, work hours and payroll for production and nonsupervisory workers, but many respondents do not identify production workers or nonsupervisory workers in their records.

What Do Establishments Tell Us About Their Participation in BLS Surveys?

To better understand the factors affecting survey nonresponse, several establishments from survey samples were interviewed about their decision to participate or not in BLS surveys. Four different establishment respondent groups were identified: 1) *consistent respondents* who report regularly and consistently; 2) *nonrespondents* who choose *not* to participate; 3) *intermittent* respondents who report irregularly (i.e., reporting “in” and “out” of the data collection cycle); and 4) *dropouts* who discontinue their participation.

Thirty-two interviews were completed with sample units from one of the four survey programs (CES, NCS, PPI, and IPP, (n=8 for each survey). Establishments were identified from a list provided by each of the survey programs for the purposes of this study. Because this very limited and non-representative sample does not support generalizable conclusions, these interviews were designed to identify significant issues and corroborate reports provided by survey managers and data collection staff.² Comments should be viewed with caution, since some interviewees may have inaccurately reconstructed their recollections or had difficulty recalling events that occurred several months or years prior to the interview.

Although limited in scope, the results from these interviews have several implications. One is that familiarity with BLS and its products is important to gaining cooperation in BLS surveys. Another is that personal contact seems to be very helpful in building the initial relationship between the respondent and the survey. A third is that establishments with easy access to appropriate data are more likely to report, while

² To avoid confusion with the term “respondent,” the term “interviewee” will be used to connote establishment respondents who participated.

those who perceive a request as burdensome or time-consuming are less likely to participate. A fourth is that respondents need to be educated about specific BLS surveys and, where relevant, how those surveys differ from other data requests (e.g. monthly CES versus quarterly submissions to state Unemployment Insurance programs).

A somewhat surprising finding is that burden was not necessarily the most important factor distinguishing respondents from nonrespondents. All of the interviewees mentioned they were busy and do not have time to spare, yet some comply, while others do not. Many (but not all) also reported that BLS data requests were relatively easy to fulfill and did not require too much time or effort. Nonrespondents were an exception to this group, expressing greater concerns about their availability to complete surveys. A more common complaint was how long respondents were expected to remain in sample and provide data—this was a bigger concern for all interviewees than any single survey task. Overall, the data requests do not seem to be difficult, but rather, are seen as a nuisance. By contrast, time in sample may be the most important source of perceived burden.

Internal Efforts to Reduce Nonresponse

Some efforts to reduce nonresponse in BLS establishment surveys have focused on improving BLS internal procedures, while others are respondent-focused and concentrate on interventions with sample units. For example, the BLS field operations office has made response improvement a top priority, and has developed measurement tools to monitor nonresponse at all levels. The office has created training courses to improve data collectors’ skills, particularly modules on refusal avoidance and “selling” BLS surveys. Other efforts are described below.

Cross-program emphasis. Traditionally, BLS data collection programs have been run independently and within rigid bureaucratic walls (“stove-piping”), with little communication between surveys. Several regional offices have eliminated these walls and worked to create an integrated approach to nonresponse across survey programs. An important effort being undertaken by Regional Offices is coordinating contacts with large or multi-unit firms across surveys, an essential step in minimizing the reporting burden on these units. These coordinated efforts include the design of promotional materials that highlight all BLS products. Refusal avoidance and reluctance training may be provided to groups of data collectors working on different BLS programs, allowing the staff to share insights from different surveys.

Training. Training plays a critical role in gaining and maintaining cooperation. A strong training effort currently underway teaches data collectors how to use the concept of “reciprocal value” to obtain respondent cooperation. This type of training focuses on how establishments can use survey data, and on how those same data can impact the establishment’s industry. Initial training also teaches data collectors how to describe other Bureau data that might benefit the establishment or the industry, the assumption being that respondents will be more likely to cooperate if they believe their data will have some benefit for their establishment or industry. Program-specific training also helps data collectors teach respondents how to complete the survey during the initial contact, and emphasizes how to avoid overwhelming respondents with the survey task.

Data collectors are also trained in avoiding refusals (Groves & McGonagle, 2001). This separate training module is offered after data collectors have several months’ experience. The intent of this training is to better prepare field staff to respond to potential objections. The course also addresses navigating the firm to find the correct informant. Refusal avoidance training is typically a mix of activities rather than survey-specific, allowing field staff from different programs to learn from each other and share ideas across survey programs.

Classroom training and on-the-job training rely increasingly on the knowledge of senior data collection staff. Rather than limit classroom training to new data collectors, senior staff participate and offer the benefits of their experience, especially regarding difficult respondents. Senior staff also assist new interviewers with their first assignments, provide advice, and monitor trainee progress.

Mentoring. Mentoring is found to be useful in all programs; however, it requires significant resources. The skill set for effective mentoring must be identified, and potential mentors identified. These individuals need training and further guidance. Finally, the time spent mentoring reduces the time they have to complete their own work.

Respondent-Focused Efforts to Reduce Nonresponse

Improved outreach efforts. An important contributor to nonresponse is the lack of awareness of BLS on the part of sample establishments. To address this shortcoming, BLS Regional Offices have created outreach efforts to publicize BLS surveys and to broaden knowledge of BLS data, their uses, and their sources. For example, regional staff attend meetings of

industry associations, where they make presentations about BLS surveys and data products and advertise BLS data products through exhibits. The regions also hold open houses to make potential respondents more aware of BLS survey programs.

Tailoring to respondents. Regional offices have begun tailoring their contacts to characteristics of the establishment, especially when they deal with large establishments. Advance letters and other pre-survey information have been altered to fit the establishment, as has the previously mentioned contact mode. Data collection staff use the Internet extensively to do background research, particularly on larger firms with complex organizations.

Management’s direct involvement with nonresponse avoidance efforts. Senior managers and branch chiefs now participate more actively when their data collectors encounter refusals or reluctant respondents, especially in large establishments. Managers may often directly contact senior officials of the firm to gain cooperation by explaining the importance of the firm’s data to BLS estimates. These efforts parallel management support of outreach programs.

Some regions have also adopted another promising approach for gaining cooperation from certainty units. Regional managers have been active not only by encouraging outreach efforts, but also by attending and actively participating in them. Several regional managers have visited certainty unit establishments in a number of BLS programs. Regional managers keep records of outreach efforts and encourage staff development activities to improve relevant skill areas that serve to reduce nonresponse. Higher-level regional managers identify and contact users of BLS data within a firm, and involve those users in efforts to gain their establishment’s cooperation.

Additional regional staff support. Each BLS office maintains a staff of economic analysts who provide support to data users and disseminate information from BLS data products. These analysts have in-depth knowledge of BLS statistics, and in several regional offices are becoming more involved in the process of securing response. Their assistance comes in two forms. They provide data collectors with background information on firms that are likely to be reluctant respondents, a list of possible contacts, and a better understanding of how the company works. Analysts also inform data collectors about BLS data products to increase their leverage when making contacts. Data collectors may also be rotated through the economic analysis office, so they can have a better grounding in BLS statistical work.

BLS Priorities for Reducing Nonresponse

Increase BLS visibility with respondents. It appears that BLS has had limited success at distinguishing itself from other federal statistical agencies. The consequence is that respondents don't understand the BLS mission, which impedes efforts to persuade them to participate in survey programs. BLS could employ a more sophisticated marketing orientation to help promote its surveys and data, and to develop a visible and positive image with respondents.

Accelerate the introduction of additional data reporting options, including Internet reporting. The survey programs that were studied are increasingly using multiple data reporting options. It might be useful to find ways to facilitate a more timely introduction of these options, especially electronic reporting.

Evaluate existing contact and initiation strategies. There is some concern that field staff are encountering new and more difficult barriers when trying to reach respondents and that established procedures (e.g., sending an advance letter) might not be effective. The cost of additional nonresponse follow-up can be monitored and used in cost-benefit analyses to evaluate the value of certain interventions over others.

Produce more relevant and timely BLS publications. Respondents sometimes report that information generated from BLS surveys could be helpful, if it were timely enough to meet their trade and industry needs. They report that industry surveys ask for similar data, but report results much more quickly than BLS does.

Bring users and providers together. Some survey programs have successfully converted refusals by asking workers in establishments that use BLS data to persuade co-workers to provide requested BLS data. More resources could be devoted to these efforts.

Areas for Future BLS Research

Reduced burden. BLS could study respondents' perception of burden and identify ways to reduce burden in establishment data requests.

Enhance utility of BLS data for respondents. Research could be conducted with data users to determine what data BLS should provide that might better meet the needs of respondents.

Increased BLS visibility. BLS could conduct evaluation studies to determine how the agency is being presented to the public. These studies would be designed to ensure a positive increase in BLS visibility. This would include evaluating the public's and the media's perceptions of BLS.

Improved contact and initiation strategies. Research could be conducted with field staff to address topics such as contact strategies for locating respondents, flexibility required when dealing with establishments, effective mentoring, and effects of staff attrition on workloads to determine how well current procedures are working and to identify areas of possible improvement. Field staff are likely to have direct knowledge about strategies that could be applied to promote respondent participation.

Improved data collection procedures. BLS could study the effectiveness of data collection procedures, and identify the most cost-effective combinations that yield the highest possible response rates. A cost-benefit analysis could be used to evaluate the value of implementing these techniques for each survey.

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