

Shared Understanding and Data Quality in the SCF

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Abstract

In a survey, data quality is most vulnerable is at the point of data collection. Because the Survey of Consumer Finances (SCF) queries respondents on topics that are particularly technical and private, the role of the interviewer as facilitator is crucial; to be an effective facilitator, the interviewer must be well informed and motivated. To this end, SCF interviewers participate in trainings with NORC staff, and historically Federal Reserve Board (FRB) staff has reviewed completed cases for data quality issues. Although the review is partly driven by software that is used to identify many classes of potential systematic problem, the focus on reviewing individual cases has made larger data quality patterns less salient. Moreover, because the review usually proceeds with a considerable lag, it has often been difficult to get to the roots of problems, to educate interviewers where necessary and to change other procedures where appropriate. Understanding and well-conceived change rest on effective communication, but despite the best efforts of all involved, communication between the FRB staff and the field staff has been inefficient.

This paper focuses on advances in the communication channel in the 2013 SCF. The work builds on the recognition that goals are easier to reach when everyone involved in the data collection process has a common understanding of them. To move closer to this ideal, some detailed elements of data quality review have been diffused through NORC staff. By engaging with the actual data, all players in the data creation process have developed a stronger common understanding of emergent issues and communicate clearly about elements of data quality. This progress will serve as a basis for subsequent improvement.

Key Words: Data quality, communication, survey methods

1. Introduction

Maintaining or improving data quality is a central focus of the Survey of Consumer Finances (SCF). The place where data quality is most vulnerable is at the point of data collection, where the respondent and the interviewer are on their own. The interview for the SCF is often difficult for respondents because the interview is usually long, the subject matter is technical, respondents sometimes have incomplete information or understanding about their circumstances, or they do not understand or engage with the language used to ask the questions, despite efforts to construct clear questions. In addition, many people consider the financial subject matter sensitive. In such an interview, the role of the interviewer as facilitator is crucial; to be an effective facilitator, the interviewer must be well informed and motivated.

Federal Reserve Board (FRB) staff and its partners in data collection at NORC have placed strong emphasis on interviewer training and feedback on data quality; the goal of both efforts is to help the interviewer become an effective facilitator. Prior to the field

period, NORC staff leads a week-long training program. During the field period, the FRB staff review the data in the course of an intensive analysis of data quality issues. The feedback from the data review is indirectly conveyed back to the interviewers in order to improve subsequent interviews.

But at each remove from the original analysis, understanding of the underlying issues can easily become more abstract and less compelling, particularly when FRB data review comes after a considerable lag, as has often been the case. Moreover, because the efforts principally have been driven by work on individual interviews, larger patterns were often hard to identify and communicate. Overall, communication was inefficient.

This paper concentrates on innovations in the communication channel for the 2013 SCF. The work builds on the simple recognition that progress is easier to achieve when everyone involved in the data collection process has a common understanding of the goals. In an attempt to come closer to this ideal, effort devoted to data quality review in the 2013 SCF has been changed to enlist the attention of the project staff at NORC.

By creating this engagement with the actual data, the hope is that all players in the data creation process develop a stronger common understanding of emergent issues and communicate more clearly about elements of data quality. This paper will describe the process in more detail and explore some lessons learned thus far.

The next section provides essential background on the SCF. The third section reviews the traditional practices of the SCF in collecting and editing data and identifies the chain of communication between the interviewers and the FRB staff. The fourth section discusses new directions taken in the 2013 SCF to improve the communication channel with all parties engaged in data collection, with the goal of improving data quality. The final section concludes and points to future directions for this work.

2. Background on the SCF

Since 1992, the Federal Reserve Board has been working with NORC on the design, execution and improvement of the SCF.¹ Interviews have been conducted by interviewers on a cross-sectional sample of households every three years, and the most recent survey is the 2013 SCF, which is on-going at the time of this writing. Although initial contact attempts are always made in person, a substantial fraction of interviews is completed by telephone, generally at the preference of the respondent.

The SCF collects very detailed information on assets, liabilities and income as well as a large number of supporting attributes. In addition, the survey collects information on employment history, a variety of demographic characteristics, opinions, and other variables. Although respondents are encouraged to use records to answer the questions, this is not always feasible. Even for respondents who use records, collecting information on some topics in the survey may be difficult, either because the respondent lacks a clear organizing structure for the household finances or because the respondent is hesitant to provide such personal information.

¹ For more information on the design of the SCF and for references to supporting technical material, see Bricker, Kennickell, Moore, and Sabelhaus (2012).

The sample for the survey is based on a dual-frame design. An area-probability sample is designed to provide broad national coverage of topics addressed in the survey. A list sample, which is designed using statistical records derived from tax returns under stringent confidentiality protections, is intended to oversample relatively wealthy households, which hold a disproportionate share of many of the assets and liabilities addressed in the survey. In 2013, the total number of cases expected to be completed is 6,100 and about 1,500 of those are expected to derive from the list sample. Weights are used to combine information from the two samples.

Since 1995, the survey data have been collected using a sophisticated CAPI program, which is discussed in some more detail below. That program is designed to support the interviewer, to provide clarifying information, to perform consistency check in real time and to provide a means at any time during the interview to add relevant commentary from the interviewer or the respondent.

In waves of the SCF before 1995, the data were collected on paper. Paper questionnaire have well known disadvantages—most notably, there is no way to require questions to be asked in an exact sequence; there is no practical way to do broad monitoring of the quality of the data as they are collected; it is not possible to condition questions, responses and supporting material on previous responses; it is necessary to enter the data into a computer in a second stage; and assuring control of paper documents is more complicated than is the case for electronic information. Nonetheless, there were also advantages of paper questionnaires, mainly in aspects tied to the accessibility of the information.

In a paper questionnaire, interviewers could easily see the broad sweep of questions, rather than having to develop a mental map of an abstract chain determined by the computer. Interviewers were expected to—and able to—perform a preliminary edit of their own data, to ensure that the questionnaire had actually been completed, that the answers recorded were legible and coherent, and that any problems were indicated in marginal notes. In the case of the SCF, a central team of editors performed a more detailed review, based on information framed in the same way it had been by left by the interviewer, and many corrections and decisions made to retrieve data were made at that stage. Only when editor review was completed were the data delivered to the FRB staff, who then applied a variety of computer-driven checks of the data to identify potential remaining problems, which were then traced back to the paper questionnaire and the cumulative set of actions noted there.

Although different participants in this process may have had different understandings of the words used and actions, they at least had a common point of view that was easily digestible by all. When the SCF moved into the world of CAPI, every effort was made to preserve important conventions interviewers relied on with paper questionnaires and to provide ample opportunity to record “marginal notes” as electronic comments. Nonetheless, the change had a strong effect on the data review process by making the object of the survey more abstract and requiring specialized skills to access the data and address problems. The locus of data review shifted strongly toward FRB staff and the common basis of communication receded. In the following section, we give a high-level description of the highly elaborated structure developed to support data review by the FRB staff and the communication channel within which it functions. The following section describes a first step toward reversing the flow of case review toward the FRB staff and supporting this change through improvements in communication.

3. Prior SCF Communication Channel

In the abstract, the role of the interviewer is a mechanical one, where everything has been thought through in advance and the interviewer is present only to execute the predetermined protocols. But the reality is virtually always much more complicated. The interview is inevitably mediated through whatever relationship the interviewer and the respondent develop—from initial efforts to gain cooperation through the process of asking for personal information and encoding the answers. This could be seen as a source of extraneous variability in the interview process, or it could be seen as an opportunity to motivate the respondent and to clarify the intent of the survey.

A survey involves reading standardized words to a broad range of people, but despite the best efforts to use neutral or clarifying text, there will always be a range of understanding of the words used in the questions. Sometimes a respondent may lack sufficient background knowledge to be able to answer a question. It is natural that a respondent would call upon the interviewer for help in understanding the intent of questions, particularly in surveys like the SCF where the focus is very largely on facts, not opinions. If the interviewer is knowledgeable about the project's goals and/or she or he is able to use tools designed for clarification (conditional instructions and various help files), then that interviewer should be able to reduce the deviation of responses from the intended concepts. Interviewers can also probe where inconsistencies or confusions arise in an interview and resolve problems that might otherwise corrupt the data. Moreover, the interviewer is critical in defusing concerns about confidentiality, which might otherwise cause the respondent to give incomplete or incorrect information.

For the SCF, the essential role of interviewers in controlling quality has long been recognized and many tools have been constructed to assist the interviewer. For the interviewer to be effective in this role of keeping the respondent on track, there must be at least a baseline level of clarity of purpose (typically developed in training) and there must be an openness to continuing education and feedback as general or interviewer-specific problems emerge over the course of the field period.

The SCF makes a very substantial investment in training. Prior to intensive four-day in-person training, interviewers are expected to complete a substantial amount of directed study. The in-person training is structured to provide interviewer with the technical knowledge to administer an interview, a conceptual framework to motivate the collection of the data, a general understanding of the subject matter, and an understanding of how to deal with problems and other unusual situations. The training includes multiple rounds of evaluation and retargeting of effort for individual interviewers, where necessary. After the formal training, interviewers have a program of continuing education, based on a library of on-line topic modules and more personally tailored coaching. The latter may be driven by issues identified by the interviewer or her or his manager or by issues identified in the subsequent review of the data collected. Interviewers are given a clear expectation that they are expected to be part of a larger process of quality improvement.

During the course of an interview, information may emerge from the respondent that qualifies a response in some way or indicates that the respondent has particular problems or questions about an item. Although the questionnaire contains all the most important instructions and it contains a glossary of terms used, there may still be times where the interviewer cannot sufficiently address the respondent's concerns. To enable to

interviewer to communicate these broader types of information to the FRB staff, the survey CAPI instrument contains a mechanism for recording comment information at any point in the interview and it is activated by pressing the [F2] key on the computer used for survey administration. In cases where the respondent needs the interviewer to continue quickly with the interview, the program allows for adding additional input and augmenting the comment after the interview, as described below. In addition, calculations running in the background during the interview to check the consistency of the reported information may automatically generate a request to the interviewer to work with the respondent to reconcile or justify an apparent inconsistency. If the time pressure is too great or the interviewer believes clarification would be ill advised during the interview, the CAPI instrument also allows the response to be deferred until after the interview.

After the interviewer leaves the respondent, she or he is required to complete a debriefing instrument as soon as possible. The debriefing is a space where the interviewer can make comments on the interview without being pressed for time, as is often the case during the interview. The debriefing instrument also displays the comments from the interview and allows the interviewer to expand on them as necessary. When pressed for time, interviewers are encouraged to take quick notes that they can more fully specify in the debriefing. Any unresolved clarifications resulting from the consistency checks are also presented for completion. In addition, interviewers are asked a series of questions about the interview; the key points are covered in open-ended questions that address various types of problems that may have arisen during the interview.

All of the comment data and the text from the debriefing are passed to the FRB staff along with the main survey data. During the interviewer training, the point is stressed repeatedly that this information is the way that interviewers have available to communicate directly with FRB staff, which reads all such information closely.

Each completed case is given a structured review by FRB staff. Case review often begins by a review of the pre-interview case work by inspecting the detailed record of calls (ROC). The ROC is a cumulative documentation of all work activity on each case.² This review can often help find cases where a questionable decision was made in choosing the respondent. The SCF case data are reviewed in light of the comments and debriefing information reported by the interviewer. Inconsistencies in case data are also found by examining warning messages which are generated based on logical checks that probe the data for potential inconsistencies at a deeper level than is feasible during the interview. The process also incorporates all other text data, including mainly verbatim responses given by respondents; such responses are often helpful in identifying, understanding or resolving apparent inconsistencies. All this information is reviewed along with a structured representation of all the other data collected during the associated interview and a variety of summary information computed from the data. Collectively, this information is the tool that drives both the detection and resolution of errors. The review may ultimately lead to a repair of the data, to future revisions of the questionnaire or procedures or to communication with the interviewer.

² Work on the SCF by the field interviewing staff is often a team activity and several interviewers can help gain the respondent's cooperation during the course of a case. A well-documented ROC, then, is helpful not just in data review but in the course of fieldwork as new staff start to work a case.

FRB staff can communicate with interviewers in two ways. In the past, FRB staff has sent case-specific comments to the interviewer. These comments generally have highlighted ways that the interviewer performed well, identified areas for future improvement and sometimes requested additional information. This feedback, though, has not been broadly successful. Although interviewers appear to appreciate praise from FRB staff, other comments or questions have not always been so favorably received. It has appeared that some of the unfavorable reaction to such comments has stemmed from an incomplete understanding of the nature of the review process and the effects that errors in the data may have. Another factor has been the occasional failure by the FRB staff to phrase comments in ways that would be seen as constructive by the interviewers. Questions directed to interviewer generally have a narrow, concrete objecting. For example, if an interviewer's comments are not readily interpreted by the FRB review staff or a complicated ownership of the sampled residence suggests that an incorrect respondent was interviewed, the interviewer might be contacted.

Such communication has been mediated by NORC staff in order to avoid conflicts and have a unified NORC voice. Usually, the FRB review staff would contact the NORC central office staff who would then contact the field manager who would then contact the interviewer. Responses to the data queries travelled back in the reverse. This circuitous route of communication sometimes weakened the connection to the real situation on both ends and it required so much time that the interviewer might no longer recall the case or the FRB staff has already developed an approximate solution.

Aside from indirect communication, the timing of communication was also inefficient. Further complication is that NORC field staff can complete interviews at a faster pace than the FRB staff can review them, so case data are very often reviewed with a lag; a case might at best be reviewed about a week after its completion, due to the timing of the processing cycle at NORC. When cases are reviewed after a considerable time lag, the interviewer's recall of the case context may have disappeared; in some cases the interviewer is no longer employed on the survey. In these cases the chance for data quality improvements vanishes and the interviewer may even be alienated by what might appear to be an unreasonable request. Overall, then, communication between all parties in the survey process was inefficient.

If there could be smoother communication among the interviewers, the other field staff, NORC central office staff, and FRB staff about objectives and about the nature of the information collected, it might be possible to reduce errors that at least, in principle, do not originate entirely with the respondent, as well as to improve sense of participation by all parties. It may also be possible to shift the way that data review is done, in order to arrange work that conserves resources and provides more timely information.

4. Proposed Changes for the 2013 SCF Communication Channel

For the 2013 SCF, FRB staff envisioned that NORC would make a structured review of 2013 SCF data before they are delivered to the FRB and maintain a database on key aspects of interviewer performance, as related to data quality. The proposed NORC review would be based on an examination of the same text data that the FRB staff review (interviewer comments in the main interview, verbatim responses, debriefing comments and data, text information in call records), and warning messages generated in a computerized review of the data (a subset of those reviewed by FRB staff). The motivating idea was to create a framework to make the data more "visible" to NORC

staff, and thereby explore both the possibilities for improving understanding, for shifting some important review activities to them, as well as discovering new approaches to improve data quality.

In the data review, FRB staff proposed that NORC consider the following items: (1) the feasibility of vetting the appropriateness of the choice of the respondent; (2) the feasibility of investigating other computer-generated warning messages that might be addressed by re-contacting the interviewer about the specific case; (3) the degree to which NORC staff may be able to characterize the information content of the data reviewed, so as to help in prioritizing data review at the FRB; (4) the apparent adequacy of interviewers' comments and entries of verbatim responses; and (5) the extent to which information from the structured review or from the database of measures of interviewer performance described above may reveal areas in which further training materials should be developed or where the questionnaire might profitably be revised.

4.1 Potential wrong respondent

The respondent in most SCF interviews should be the "head of household" or that person's spouse or partner, if they are more knowledgeable about the household's finances.³ Sometimes, however, the head is identified incorrectly, either because of a misunderstanding of the protocol on the part of the interviewer or confusion on the part of the household member completing the survey screener. In past years, FRB staff undertook a review of the appropriateness of each respondent. For 2013, it was proposed that NORC would review each case in a timely manner, send problematic cases for prompt field review and, if necessary, reset the case and return it to the field for re-interview.

As noted above, NORC staff can communicate easily with field staff to resolve any potential issues quickly. If investigated cases do not need to be returned to the field to be completed again with the correct respondent, NORC staff would pass along text comments to FRB in the data delivery, along with a flag variable indicating that such review had taken place. The additional comments would be included in the materials used in the FRB review and the associated case would be given high priority in the FRB data review.

The NORC review would use a set of warning flags that have historically been helpful to FRB staff in identifying situations where there has been an error in the selection of an eligible respondent:

³ For the area-probability part of the SCF sample, the intention in the SCF household screening is to identify the person or couple that is the dominant economic center of the household; the respondent would either be a single person who is such a center, or the financially more knowledgeable person in the case that the center is a couple (married or living as partners). The term "head of household" is used as a shortcut toward the determination of the economic center; the term resonates with many people. If household members do not think of their household as having a head, the screener focuses on ownership of the dwelling or responsibility for the lease to define the economic center. In the rare instances where there are multiple such people who are not a couple, there is a selection based on age. For the list sample, a specific person or couple is targeted, and where the targeted person is married or living with a partner, the person more knowledgeable about the household finances is selected.

- An indicator for when the respondent neither owns nor rents the primary residence and there is someone in the non-primary economic unit (NPEU);⁴
- An indicator for when the respondent has a financially independent parent in the NPEU and the parent is under age 65;
- An indicator for when a person in the NPEU owns the respondent's home.

Other, less formal indications of problems in respondent selection may be gleaned from data in the ROC, the debriefing, the interview comments, and the CAPI data (especially information in the interview on the date that the PEU acquired or moved into their home).

4.2 Other warning flags

In data review, FRB staff has historically used a variety of other warning flags to identify data which may be mis-recorded. These flags have been used by the FRB and often signal data issues that are more nuanced relative to the messages in the previous section, and often require a deeper investigation. These flags also differ in terms of the appropriate action to take based on the information. When a data change is called for in these cases, it often entails a complicated rearrangement of other information; certain resolution of the issue often could be obtained from the respondent, though that approach is attempted only as a last resort.

In their data review, NORC staff will use a subset of the set of flags to guide the review of the data and to shape possible protocols for communicating with field staff. The choice was guided by a desire to introduce the idea of such case review for issues that tend to have relatively straightforward resolutions. Examples of such warning flags are:

- The respondent reported total income of zero dollars in the section of the interview that provides a comprehensive review of all income sources for the past calendar year.
- The reported mortgage was balance greater than amount borrowed.
- To check the respondent's share of rent for a renter household when there is a person in NPEU.
- When an employer pension contribution reported as a match rate that appears more likely to be a percent contribution, rather than a match rate.

The debriefing comments and interview comments also may indicate whether the data are reported in error. During the data review, if the comments do not provide this guidance, NORC staff may contact the interviewer to ask for more details.

Often flags such as these are triggered because of a misunderstanding of the questionnaire—by the respondent or the interviewer. For example, it appears that the respondent reports no income in the appropriate section because the interviewer believes that income was already recorded earlier, say in the section on employment where the current wage is reported;⁵ the amount of the current mortgage balance makes it appears

⁴ The SCF identifies at most two economic units with a household: the Primary Economic Unit, or PEU, which consist of the respondent and spouse or partner (if applicable) as well as anyone else with whom they are economically interdependent. Any household members with largely or entirely independent finances are classified as members of the Non-Primary Economic Unit, or NPEU.

⁵ This income section has a preamble that makes the distinction between incomes reported elsewhere in the interview and the income in the summary section, but it appears that sometimes

that the PEU is seriously behind in its mortgage payments, because they had refinanced their house and extracted equity, but reported the amount borrowed under the original mortgage instead of the amount borrowed under the current mortgage; the respondent reported only the PEU's share of rent, because the interviewer forgot to read instructions on the rental amount screen; or an implausibly small pension match rate appears in the data, because the "match rate" and "percent of pay" options on the questions about employer contributions to pension were misunderstood.

By following up with the field staff on these issues, the NORC central office can engage in direct re-training and further enhance the field staff's understanding of the questionnaire.

4.3 Other results from case review

During the process of data editing at the FRB, all text data are reviewed, along with a structured representation of all the other data collected during the associated interview. This information drives both the detection and resolution of errors. Although interpretation of some of that information requires substantial technical knowledge of the subject matter, much of it does not.

During the course of case review, NORC will already be reviewing all of the text data associated with each case. Thus, other issues potentially bearing on data quality may arise. For example, a debriefing comment may indicate that the respondent omitted a particular asset. A reasonable expectation appears to be that important comments might be flagged, and that interactions with field staff might be increased to support improved comment data in the future.

4.4 Database of interviewer performance

As part of the data review, NORC will also generate a database of indicators of interviewers' performance. Information of this sort is envisioned as being useful for detecting problems that affect interviewers broadly and problems that are particularly common for a given interviewer.

Some such information may be captured mechanically (fraction of relevant dollar values answered "don't know" or "refuse," the number of time the interviewer used an facility in the interview to allow breaking out of iterative loops in "emergency" situations, the length of the primary comments in the debriefing, etc.); there may be other such mechanical indicators that are useful (see examples below). Other information relevant for such a database may be generated in the process of case review, either by NORC or the FRB.

Among the types of additional mechanic review to be tracked, the following are initial possibilities:

- Birth date is refused for the respondent or that person's spouse or partner;⁶

interviewers either skip this screen or do not read it. It is also possible that respondents do not understand the intended approach and the interviewer does not probe for clarification; it is also possible that the respondent deliberately and falsely reports no income.

⁶ Either the age or birth date of the respondent is a required field; failure to collect that information will terminate the interview. There is currently no comparable requirement for the spouse or partner of the respondent.

- Timing of the confirmation screens for all dollar-denominated questions indicates that the screen could not have been read;⁷
- The interview time is implausibly short;
- The number of cases where the respondent and/or that person's spouse or partner is a full time worker but has not worked for any time at a past employer for more than 1 year ;
- Any instance of \$1 being reported in answer to a dollar-denominated question.⁸

4.5 Training and communications for 2013 SCF

With smooth communication among the interviewers, the other field staff, NORC central office staff, and FRB staff, it would be possible to reduce errors that at least, in principle, do not originate entirely with the respondent and to alter the strategy of the interview to pose questions in a way that may be less confusing. Additionally, it ought to be possible to improve material in comments to support interpretation of the data, and to restructure future questionnaires where that is appropriate.

5. Data Experiment

To support an initial feasibility test of the proposed data review, FRB staff selected a set of 100 cases from the 2010 SCF and worked with NORC to develop the capability to undertake a preliminary data review. Prior to the data experiment NORC was not able to review SCF data comprehensively, except by making special queries to the database to view questionnaire data, ROC data, and interviewer or debriefing text data. The text data were reviewed only for the purpose of removing identifying information. For the data experiment, NORC staff consulted with FRB staff to generate code for warning flags (described above), and to put the data together as a whole in order to review the data in a similar manner as the FRB. By standardizing the review process, the chances of miscommunication during review were reduced.

The set of 100 cases selected for the data review included ones that had known types of problem and ones that did not have an actionable problem; these cases were reviewed by FRB staff during the 2010 field period and one objective of the 100 case review was to compare how NORC staff and FRB staff analyzed the case.

Once the NORC infrastructure for case review was developed, NORC staff would review a subset of the cases, take notes about possible data errors and remediation for those errors, and would report back to FRB staff, describing both the case report and the thought process behind the case review. The NORC staff review found, by and large, the same issues that FRB staff found. And just as field interviewers were able to do in the past, NORC staff would be well equipped to undertake a data review at this level, and they showed willingness to go further.

⁷ For every question in the interview with a dollar-denominated response (or range response), the CAPI program generates the text equivalent of the dollar amount the interviewer enters, and the interviewer is instructed to *read* the response back to the respondent—not just to repeat what the respondent has said.

⁸ There are instances where an answer of \$1 might be appropriate, but it appears to be more common that interviewers enter such amounts either to avoid having to probe or reassure a reluctant respondent or to move through questions the interviewer believes are inappropriate.

By working through the cases NORC staff developed a clearer understanding of some of the struggles that the FRB staff encountered with data quality reviews. In part, this understanding helped to develop similar processes applied for the 2013 survey and helped to inform the 2013 round of pre-field interviewer training and questionnaire revisions. At least as importantly, it provided the basis for a more common and transparent understanding of the primary objectives of the survey that is essential for guiding all participants in the measurement process toward achieving a common goal.

6. In Practice: the 2013 SCF

NORC began a selective review of the data at the start of the 2013 field period by reviewing a set of flags that check data quality (described above), the text data in the ROC, interviewer notes, and debriefing comments to identify potential data issues. Cases that merit more scrutiny are not delivered to the FRB until issues are resolved.⁹ In the 2013 field period the FRB staff continued to engage in a holistic review of the data.

The selective data review has helped inform NORC of data quality issues that have arisen in the field, and NORC's subsequent engagement with the field staff has helped boost data quality. Standard practice for NORC central office staff was already to send a weekly newsletter to the field staff to highlight some aspect of the survey. During the first 10 weeks of the 2013 field period, though, twice the newsletter broadcast reminders about proper collection practice regarding some of the variables that NORC reviewed.

First, the May 30th newsletter reminded field staff that all sources of 2012 income should be collected in the income section of the SCF, even if the respondent has already reported wage and salary information on her current job in a previous section of questions on employment.¹⁰ FRB staff reviewed 323 cases that were completed in the two weeks prior to the newsletter. Of these, 34 cases (or 10.5 percent) were flagged by FRB reviewers for having income data that was inconsistent with data reported earlier in the survey. In the two weeks after the newsletter went out, only 11 of the 140 reviewed cases (or 7.9 percent) were similarly flagged.

Second, the July 3rd newsletter reminded field staff to review how to follow the correct protocol for adding an institution associated with an asset or liability reported in the interview. Of cases completed in the two weeks prior to the newsletter, FRB staff flagged six of 61 cases (nearly 10 percent) as having an institution incorrectly added during the interview. But in the two weeks after the newsletter only one of 37 reviewed cases (about two percent) had an institution incorrectly added.

In both cases the data review process identified areas where data were being collected incorrectly. These results are not causal, but they are an early indication that effective communication can help to improve the quality of the collected data.

⁹ Typically, the resolution comes after contacting the interviewer to learn more information.

¹⁰ The income section asks the respondent about all sources of income in the prior year, including labor income, business income, and other non-labor income; in a previous section (on employment) the respondent is asked about current employment status, including wage and salary on the current job. When a family has no non-labor income the Section T questions may be seen as redundant. However, there are conceptual differences between *current* wage and salary income and wage and salary income in the *past year* that the SCF captures.

NORC has also taken the lead in identifying cases where a respondent may have been selected in error; once identified these cases are reset and sent back to field before the FRB review takes place. However, flags to help identify wrong respondents may still be triggered in FRB data review; these should all be “false positives” because the true positives should not be sent.

The FRB flags identifying a possible wrong respondent were triggered fewer times in 2013 than in 2010, which is expected if the true wrong respondent cases are removed before the data delivery to the FRB. As of week 18, the flag identifying cases where the a NPEU member was a parent was triggered 29 times in 2013 and was triggered 41 times in 2010; other flags identifying other cases with a parent in the NPEU or NPEU ownership of the housing unit identified four cases in 2013 and five cases by the same point in 2010.

7. Summary and Conclusion

Clear communication is important in most areas of human life. Because the whole point of surveys is to communicate information from respondents to analysts, clarity is particularly important there. Analysts must use “agents” (interviewers) to solicit information for them, and even though questionnaires are usually highly structured sets of questions, there is still substantial latitude for a variety of misunderstandings by respondents or interviewers that can affect what is reported. Bringing the understanding of the parties to an interview into alignment with the analytical objectives should always be a high priority. We cannot directly control respondents’ understandings, but interviewers can be a powerful force for clarity, if they have the necessary knowledge and motivation. We ought to be able to improve the understanding of interviewers and to alter their behavior, if we have a way to reach them clearly and in a spirit of cooperation. Initial training is, obviously, a big part of this communication, but experience has shown that there is a continuing need to provide targeted and more individualized feedback to interviewers.

Typically, the chain of communication from analysts to interviewers involves at least some level of supervisory staff, and attempts to identify and correct misunderstandings must go through this channel. Without a specific means to drive toward and maintain clarity in this intermediate stage, the possibilities for miscommunication both to and from interviewers can actually be amplified—such as in the case of a multiply-translated joke. In a survey like the SCF where the content and structure of the interview rest on complicated technical foundations, this can be particularly problematic.

A related problem concerns the problems faced by interviewers in administration that may be invisible or misunderstood by analysts. Understanding the ultimate constraints of survey administration is critically important for shaping both the content of future surveys and for evaluating the reliability of current data. A clear communication channel with interviewers should also allow them an opportunity to report important problems related to questionnaire administration.

The SCF devotes substantial resources to identifying and addressing errors in the data, largely through a process of detailed editing. Although it is possible to explain patterns of errors in generic terms that are sometimes helpful in developing generic training (or re-training), it appears that problems are very often rooted in more subtle patterns of thought that are less susceptible to simply providing an improved definition or an additional

question-specific instruction, for example. To address such issues successfully, all parties engaged in corrective activities need to have a common understanding of the issues and the possibilities for change.

For the 2013 SCF, an experimental approach has been taken to provide a basis for developing a more common understanding. In contrast to most earlier SCFs, where the FRB staff conducted virtually all of the substantive data review, a part of the 2013 data review has been taken on by NORC central office staff. NORC staff investigates the underlying data associated a set of specific problems identified by programmatic error-detection, reviews some key aspects of case-specific commentary written by interviewers and undertakes other review at the case level and the interviewer level. These aspects were selected for review in order to highlight various dimensions of the data and underlying processes. An immediate consequence of this activity was a greatly expanded consciousness on the part of these critical intermediaries about the implications of errors and the possibilities for remediation. This has provided additional clarity both in communications with the interviewer staff and has helped in identifying and framing more general material for continuing education for interviewers.

The evaluation of the process is incomplete, in part because the field period is not yet over. The larger gains from the work are expected to emerge in future surveys, both through improved training and through improvements in procedures to identify and address problems specific to individual interviewers. However, the level of known success with this effort is already sufficient to suggest that a more extensive role for NORC in the editing process may be appropriate going forward—in essence, moving toward a recreation of the process in place for the SCF before the introduction of CAPI.

Continual improvement in all areas is a standard goal for each wave of the SCF and the field staff are a crucial part of maintaining the high standard of quality for the SCF wealth data for the U.S. In striving toward this end, we place a strong emphasis on having the field staff understand their importance in ensuring that the SCF retains both its traditions of data quality and mutual personal respect.

Acknowledgements

The analysis and conclusions set forth are those of the authors and do not indicate concurrence by other members of the research staff or the Board of Governors. We are grateful to Gerhard Fries, Alice Henriques, Joanne Hsu, Kevin Moore, and John Sabelhaus at the Board of Governors; to Susan Boehmer, David Paris, Barry Johnson and Michael Parisi at IRS Statistics of Income; to the SCF respondents for providing their data for research purposes; to Cathy Haggerty, Micah Sjoblom and NORC central office staff; and to NORC field staff. Any errors and shortcomings are those of the authors.

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