回収状況検査の見直し

**見直し前
10月28日WG資料**

標準検査（２）（回収状況検査）

　検査の対象となった統計調査の回収率が、同様の調査手法、調査対象である他の統計調査と比較して明らかに低いと判断される場合、
比較した他の統計調査における情報（回収率向上方策）を提示し、同様の取組ができないか確認する。

期待される効果

◇　検査官とコミュニケーションをとることで、経験の浅い職員でも優良事例の情報を得やすく、効率的に対応できる可能性が高まる。

第3回 WG議事概要
○　回収状況検査では、催促の頻度、オンライン調査、報告者負担軽減策の実施状況、回収後の集計・公表までの期間
　（公表早期化の検討材料にもなる）などをチェックしてどうか（日本銀行）

　検査対象となる統計調査において、検査の対象となった統計調査の回答状況について、以下の視点からヒアリングや資料提出等を通じて確認を行い、総務省の見解を統計委員会に報告する。

　１）　回答が得られた客体の数は、統計を作成するのに十分か。

　２）（例えば、地域属性、規模属性、年齢属性などでグルーピングした際に、）グループ毎の回答状況に偏りが生じていないか。生じている場合、集計等で適切な措置がとられているか（補完措置や事後層化措置等）。

　３）　督促、代替標本の確保などの回答を得る対応状況を確認し、当該対応が（予算・リソースの範囲の中で）妥当なものとなっているか。

　４）　オンライン回答が導入されているか。導入されていない場合、合理的な理由が認められるか。

　５）　必要に応じて、重み付き回答率（次頁参照）を計算し、カバレッジ面で重要な調査対象の回答が欠損していないか確認

　６）　上記１）～５）及び予算、調査内容（報告負担）、調査対象、報告の期間などから総合的に勘案し、回答状況は問題ないか、それとも改善の余地があるか。（改善の余地がある場合、具体的な取組について提案）

【参考】

重み付き回収率 （米国ガイドラインが参照するworking Paper 31の内容）

4.2.3 Weighted Response Rates

It is common for household and establishment surveys to have different probabilities associated with different units in the sample in order to reduce the variance in subpopulation estimates or estimates for the total population. In this case, it is useful for the response rate to reflect the selection weight, w_i. For each observation i, let $I_i = 1$ if the ith respondent is an interview, and $I_i = 0$, if the ith respondent is not an interview. Similarly, let $R_i = 1$ if the ith sample unit is a refusal, and $R_i = 0$ if the ith sample unit is not a refusal; $NC_i = 1$ if the ith sample unit is a noncontact sample unit known to be eligible, and $NC_i = 0$ if the ith sample unit is not a noncontact sample unit known to be eligible; and $O_i = 1$ if the ith sample unit is a noninterview for reasons other than a refusal and known to be eligible, and $O_i = 0$ if the ith sample unit is a noninterview for reasons other than a refusal and known to be eligible.

A weighted response rate, with w_i = the inverse of the probability of selection for the ith sample unit and the sum is over all sample units selected to be in sample, can be given by:

$$\frac{\sum wI_i}{\sum w_i(I_i + R_i + NC_i + O_i)} \tag{4.3}$$

Equation 4.3 can be modified to reflect cases of unknown eligibility. This response rate shows the estimate of the proportion of the population measured if the same survey procedures were used on a census of the population. This rate may be useful for characterizing how completely the population was measured prior to adjustment for nonresponse and can also be useful for showing separate response rates for subpopulations that had different selection probabilities.

In addition, many establishment surveys use weighted response rates because a small number of extremely large firms may dominate an industry (Osmint, McMahon, and Ware-Martin 1994). Because nonresponse by one of these large firms can have severe consequences on how well a variable, such as total sales, is estimated, weighted response rates in establishment surveys are typically reported as an estimate of the proportion of the population total for a characteristic, y, associated with the responding sample unit. The characteristic, y, for example might be "total assets" or "total revenues" or the "total amount of coal produced." This response rate is often called a "coverage rate" but, in fact, is a weighted item response rate, where the item of interest is a quantity of primary interest for the survey. If we let y_i be the value of the characteristic y for the ith sample unit and sum over the entire sample, then the weighted response rate is given as:

$$\frac{\sum w_i y_i I_i}{\sum w_i y_i (I_i + R_i + NC_i + O_i)} \tag{4.4}$$

Equation 4.4 can be modified if there are cases of unknown eligibility. Data collected for a previous period or from administrative records may be used in the denominator in a weighted response rate to represent the nonrespondents.

4.2.4 Using Weighted versus Unweighted Response Rates

Both unweighted and weighted response rates can be useful for different reasons in any survey. Unweighted response rates provide an indicator of the quality of the data collection and may be calculated at national, regional, and interviewer levels or for certain domains to evaluate performance. The unweighted nonresponse rate (or the number of nonrespondents) indicates the extent of nonresponse followup—a data collection workload measure. Weighted response rates indicate the proportion of the population (or some calculated subpopulation) that responded to the survey, and can be useful for an analyst's evaluation of the effect of nonresponse on survey estimates (Kasprzyk and Kalton 1997; Madow, Nisselson, and Olkin 1983). For example, the SASS and NHES surveys (both sponsored by NCES) rely on unweighted response rates during data collection to monitor progress. However, they analyze weighted nonresponse rates to determine whether portions of the population are underrepresented in their surveys due to nonresponse (Jabine 1994; Scheuren et al. 1996). For establishment surveys, the weighted response weight reflects the proportion of some characteristic of interest covered by the sample, and reflects the amount the characteristic will need to be estimated by using imputations or weight adjustments.

検査の構成の変更について

平成29年度、全ての基幹統計調査を検査対象とする場合、見える化状況検査だけでも大きな業務量となることなどを考慮し、本検査は標準検査からオプション検査に変更したい。

10月28日　WG案

標準検査 ──────── 見える化の状況検査
　　　　　　└── 回収状況検査

オプション検査 ──── 母集団への適合状況検査
　　　　　　├── 他統計との乖離分析
　　　　　　├── 欠測値検査
　　　　　　└── シミュレーション検査

変更案

標準検査 ──────── 見える化の状況検査

オプション検査 ──── 母集団への適合状況検査
　　　　　　├── 他統計との乖離分析
　　　　　　├── 欠測値検査
　　　　　　├── シミュレーション検査
　　　　　　└── 総合検査