



**External Review of Survey Programs:
A Progress Report**

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The Government Performance and Results Act (GPRA) of 1993 requires federal agencies to identify long and short term goals, collect data on their effectiveness in meeting these goals, and then use the data to justify their budget requests. To improve implementation of GPRA, the Office of Management and Budget (OMB) created the Performance Assessment Rating Tool (PART) in 2002. This tool is used by OMB to evaluate four aspects of government programs: their purpose and design, strategic planning, management, and results and accountability.² External reviews are mandated to encourage rigorous performance assessment to boost the quality of Federal government programs. For programs composed of a family of related surveys, an important aspect of performance assessment is the evaluation of each of the program's survey components and then the evaluation of the effectiveness of the overall program. This paper presents the results of an investigation designed to produce templates for external review of EIA survey programs.

In the Fall 2004 meeting of the ASA Committee on Energy Statistics, we summarized the overall plan for the investigation and presented the Survey Evaluation Template that had been developed. This paper summarizes the results since that meeting—the development of the Program Evaluation Template and the use of the two templates to evaluate EIA's Petroleum Marketing Program and its 11 component surveys.

Program Evaluation for a Family of Surveys

Program evaluation for a family of surveys begins with the evaluation of the individual surveys comprising the program. Cox and Kirkendall (2004) present the Survey Evaluation Template and describe its use.³ The Final Program Evaluation Template has been developed since the Fall 2004 meeting and is presented in the Appendix. The Program Evaluation Template covers the following topics:

- Description of the program;
- Program objectives;
- Target populations;

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² Office of Management and Budget (2004). "Rating the Performance of Federal Programs," <http://www.whitehouse.gov/omb/budget/fy2004/performance.html>.

³ See http://eia.doe.gov/smg/asa_meeting_2004/fall/files/developsurvey.doc for this paper.

- Sampling frames;
- Program design;
- Data collection and processing;
- Data analysis, products, and documentation; and
- Summary of findings.

In using the template to evaluate a program, the reviewer summarizes the program's attributes for each topic, identifying strengths and weaknesses, then providing both recommendations for improvement and recognition of desirable design elements already in place.

Template Testing

The program and survey evaluation templates were concept tested by using them to evaluate the Petroleum Marketing Program. The evaluation was based on publicly available documentation, including the most recent OMB clearance package, published data reports, and EIA web site postings. The completed evaluations were then shared with program and survey managers to get their comments or corrections. As appropriate, the input from program staff will be incorporated into the final survey and program evaluations.

At this point in time, the survey evaluation template has been used to review 6 of the 11 petroleum marketing surveys. The review resulted in a 7 to 11 page summary for each survey with specific recommendations for improvement. Typical findings for the survey evaluations were that the survey objectives need to be more completely specified, the target population definitions should be made more specific, frame coverage and updating procedures were not adequately specified, editing and imputation procedures need to be more fully documented, and the mailout packages are well designed but could benefit from tweaking.

Several important results came out of this process. The most important finding was that the survey evaluation process worked. The underlying concept for the survey review was that the reviewer would first summarize the methodology for each topic area in the template, then critique the survey approach and provide recommendations for change or endorsements of the current approach. When EIA staff reviewed the draft survey evaluations, however, we discovered that the recommendations need to be explicitly labeled and presented on a section by section basis. Thus, recommendations associated with the sampling frame would be presented in the sampling frame section. Another finding was that the same design attributes and flaws often occurred across surveys. Each survey evaluation was independently prepared so this repetition made for boring reading for EIA staff reviewing the whole package. Finally, the survey evaluations were impeded by the absence of survey methods reports that overviewed all aspects of survey design and execution. Instead, a variety of sources had to be used to evaluate each individual survey, and some aspects of the survey could not be evaluated.

The program evaluation template has been used for the overall evaluation of the Petroleum Marketing Program. One finding from the concept testing was that the survey evaluations were critical to the evaluation of the overall program. Part of the reason for their importance was the

discovery that there is essentially no documentation describing the overall program. The available documentation focuses on the individual surveys and does not address how these surveys come together to create a program of research. The individual surveys have evolved over time and many were inherited from other agencies. As a consequence, variations occur in target populations and in reporting procedures/definitions that appear to be due to happenstance as well as to deliberate planning.

Recommendations resulting from this evaluation tended to be related to the need an overall design plan. These recommendations tended to revolve around three themes: (1) the need for a conceptual plan for the overall program describing its objectives and specifying how the individual survey components relate to these objectives; (2) the need for the individual surveys to tighten up some definitions/procedures to eliminate unnecessary variation across surveys; and (3) the need for methods documentation at the program level and at the survey level.

The template form can be used as a guide for what should be included in the methods documentation. An additional possible use of the completed templates is as a starting point for the documentation for a particular survey or survey program.

Remaining Activities

The Petroleum Marketing Program Evaluation and the associated survey evaluations are now being reviewed by survey staff for accuracy. Once comments are received, the evaluations will be corrected and a Final Evaluation Report prepared.

The final activity in this investigation will be to use what was learned in evaluating the Petroleum Marketing Program to create penultimate templates for the survey evaluation and the program evaluation. These templates and their use will be documented in a methodology report with details on their use.

Questions for the Committee

The Program Evaluation Template is included in the Appendix. We would appreciate comments on the template with particular attention to:

- Are there additional items that should be included?
- Do some items need to be modified or expanded?
- Are there items that could be deleted?

We would also appreciate any comments the committee has related to roll out of the program evaluations. In particular, we would like the committee's input on how the concept outlined in this presentation fits into an overall ongoing program of external evaluations.