

Title: **Application of Cognitive Methods to an Establishment Survey: A
Demonstration Using the Current Employment Statistics Survey**

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Abstract:

This paper describes the application of two evaluation approaches to the ongoing Current Establishment Statistics (CES) survey questionnaire, and uses the results of these complementary techniques to identify potential sources of measurement error in the survey. CES provides monthly data on U.S. payroll employment, hours, and earnings, which are closely watched economic indicators. The self-administered questionnaire was originally developed as a mail shuttle form on which respondents supplied new data each month for a year. Respondents now use it to record monthly data for Touchtone Data Entry or CATI.

We conducted an Expert Appraisal of the questionnaire using the system developed by Forsyth et al. (1999) for establishment surveys. The appraisal process is organized around the cognitive response model of comprehension, retrieval, judgment, and communication, and takes into account characteristics of establishments that affect survey response such as the type of information requested and the organizational structure. As applied to CES, the appraisal raised specific concerns about instruction content, navigation, question structure, and the survey reference period.

We incorporated results from the Appraisal into the protocol for a series of cognitive interviews. We interviewed establishment respondents who had never participated in CES and obtained information on their approaches to the questionnaire, their sources of data, their strategies for preparing responses, and the extent to which their responses matched the questionnaire specifications. In this paper, we focus on the relative contributions of the appraisal and cognitive interviews to the testing process, including similarities and differences in emphasis from each approach. We describe potential problems identified by the appraisal that did not arise as problems during the interviews, and vice versa. Finally, we discuss implications for using these approaches to evaluate establishment survey questionnaires with the goal of reducing measurement error.

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