

## MEMORANDUM

**Date:** March 21, 2008

**To:** Shelly Wilkie Martinez, Desk Officer  
Office of Management and Budget

**From:** Lynda T. Carlson, Division Director  
Science Resources Statistics

**Via:** Suzanne Plimpton, Reports Clearance Officer  
National Science Foundation

**Subject:** Notification of cognitive research under generic clearance

This memorandum is to inform you of NSF's plans to conduct cognitive research for the Survey of Industrial Research & Development (OMB number 0607-0912) under the generic clearance for survey improvement projects (OMB number 3145-0174). This research will focus on the ability of very small companies (less than 5 employees) to answer selected research and development (R&D) questions and a set of questions designed to identify innovation seeking companies. The Survey of Industrial R&D (renamed the Business R&D Survey) collects R&D related data from a nationally representative sample of U.S. based companies on an annual basis. Companies with fewer than 5 employees have been excluded from this survey. The National Science Foundation wants to investigate whether such very small companies are conducting R&D or otherwise engaged in innovation seeking activities.

### Background

Recently the National Academy of Sciences' Committee on National Statistics (CNSTAT) completed a review of NSF's portfolio of research and development (R&D) surveys. For the Survey of Industrial Research and Development, CNSTAT specifically recommends that NSF conduct "field observation staff visits" to determine ways to measure firm innovation and to investigate the incidence of R&D activities in growing sectors, like small business enterprises, not currently covered by NSF's Business R&D Survey.

To address these two recommendations, we are proposing visits to about 50 companies to determine the ability of U.S.-based small companies with less than five employees to answer core R&D related questions extracted from questions currently asked on NSF's Survey of Business R&D and to test a limited set of innovation-related questions that might be periodically added to the full survey.

### Research Plan

The visits will be semi-formal pre-survey design visits. They will incorporate open-ended questions and ask respondents what records they might have that relate to the Survey of Business R&D topics prior to developing a survey instrument for small companies. The pre-survey interview explores the types of information that respondents might have knowledge of or typically maintain. The interview also asks respondents about the amount of work that would be necessary for them to retrieve relevant records.

We are working with cognitive researchers from the Energy Information Administration through an Interagency Agreement. They will accompany an NSF subject matter expert to all interviews

to conduct the interviews and take notes of those interviews for interview reports. These researchers have experience in the pre-survey interview techniques with companies. They have worked with the National Science Foundation on prior projects.

Specifically, the interviews will focus on the company's ability to answer:

- A core set of questions currently asked on NSF's national business R&D survey
- A series of questions that will identify firms with new to market innovations
- A series of questions that can differentiate "innovation seeking" from "noninnovation" seeking firms
- A set of questions to report information on knowledge diffusion through collaboration

These concepts first will be operationalized and vetted with local DC area companies that are viewed by NSF staff as innovative. The "frame" will come from NSF SBIR companies. To recruit respondents, we will contact companies by phone and e-mail to make an appointment with an appropriate company representative. After respondents agree to participate, we will send them an e-mail thanking them for their willingness to participate and confirming the appointment. We will audiotape interviews for respondents who give us written permission. We will not be offering payment to our respondents.

During FY 2008, we plan to conduct a maximum of 50 cognitive interviews. The estimated time for completion of the interview is about 90 minutes. Thus, we estimate a total burden of no more than 75 hours for this phase of our research.

The contact person for questions regarding this research is:

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