

MEMORANDUM

Date: August 26, 2020

To: Margo Schwab, Desk Officer
Office of Management and Budget

From: Emilda B. Rivers, Division Director
National Center for Science and Engineering Statistics

Via: Suzanne Plimpton, Reports Clearance Officer
National Science Foundation

Subject: Notification of cognitive interview research under generic clearance

This memorandum is to inform you of the National Center for Science and Engineering Statistics' plans to conduct cognitive interviews under the generic clearance for survey improvement projects (OMB number 3145-0174). NCSES also intends to conduct a brief poll of HERD respondents as part of an annual informational webinar. This research will focus on obtaining information to measure the disruption to higher education R&D in FY 2020 due to the COVID-19 pandemic through the Higher Education Research and Development Survey.

Background

The National Center for Science and Engineering Statistics (NCSES), within the National Science Foundation (NSF) collects, maintains, and disseminates information on science and engineering resources in the United States' economy. A component of this activity is its conduct of the Higher Education Research and Development (HERD) Survey which is conducted annually. The HERD Survey collects information on the financial resources allocated to R&D by universities and colleges. Institutions reporting \$1 million or more in R&D expenditures in the previous fiscal year are asked to respond to the standard HERD survey form, whereas institutions reporting between \$150,000 and \$1 million are sent a short form version of the survey containing only a few questions. Approximately 950 institutions are in the HERD survey universe, although only about 650 are in the standard survey form population in a given fiscal year. The other 300 are part of the short form population.

There is a general impression that the COVID-19 pandemic disrupted R&D at universities and may have caused the reassignment of R&D personnel and funds to help address relevant pandemic-related projects. NCSES would like to gather information on the impact of the disruption to R&D related activities caused by the pandemic by adding three qualitative assessment questions to the FY 2020 survey (e.g. To what degree were your institution's FY 2020 R&D activities disrupted due to the COVID-19 pandemic on a scale of 1-5?). Cognitive interviews are needed to understand whether the questions are relevant and answerable since it is unclear what sort of information colleges and universities are tracking related to the pandemic. These questions would allow NCSES to supplement data on R&D expenditure totals.

The resulting information will provide data users and policy makers with a more comprehensive picture of FY 2020 trends. NCSSES anticipates that the additional questions would be on the survey for a few cycles, similar to the question regarding American Recovery and Reinvestment Act funding that appeared on HERD from 2009 to 2014.

Research Plan

NCSSES plans to conduct up to 20 interviews with HERD standard form institutions from the three highest quartiles by total R&D expenditures reported for FY 2019. These institutions have higher levels of research activity and thus have a greater impact on total R&D. They also have greater insight into issues related to the R&D interruptions. NCSSES anticipates placing the final questions on both the standard and short form HERD surveys. Short form institutions will be able to provide feedback on the answerability of the questions through the HERD respondent Webinar noted below. Institutions that were recently interviewed as part of the R&D researcher full-time equivalent question development will not be contacted (see the OMB generic clearance memo from NCSSES dated March 9, 2020). Based on these factors, NCSSES expects approximately 500 universities and colleges to be eligible for contact.

NCSSES will recruit from a sample of 120 institutions in order to obtain interviews with 20 institutions. The sample of 120 institutions will be randomly selected from the pool of 500 eligible institutions. The sample will be divided into 6 proportional classes from the standard form survey defined by type of control (public or private) and the top three quartiles of total R&D expenditures reported on the FY 2019 survey (see below).

Sample of Eligible Institutions to be Recruited for Interviews by Type of Control and Quartile

Type of Control	Quartile of Total R&D Expenditures				
	1 st	2 nd	3 rd	4 th	Total
Private	0	20	14	11	48
Public	0	20	26	29	72
Total	0	40	40	40	120

NCSSES’s goal is to interview 8 private institutions and 12 public institutions across the range of R&D expenditure totals as shown below.

Number of Anticipated Institutions to be Interviewed by Type of Control and Quartile

Type of Control	Quartile of Total R&D Expenditures				
	1 st	2 nd	3 rd	4 th	Total
Private	0	2	2	3	8
Public	0	4	4	4	12
Total	0	6	6	7	20

To recruit respondents, NCSSES will send e-mail invitations to the FY 2019 survey respondents at selected institutions. The e-mail invitation will provide detailed information about the nature of

the interview, including the anticipated time requirement and the process for providing feedback. If NCSSES has not scheduled a representative sample within a week, a follow-up e-mail will be sent. After respondents volunteer to participate, an e-mail will be sent to thank them for their willingness to participate, offer to answer any questions, and confirm the date and time of the meeting. All contact materials can be found in Attachment A.

Each institution that participates in the interviews will be asked to respond to questions developed to gauge the disruption to R&D activities caused by the COVID-19 pandemic. The interviews are anticipated to last approximately 30 minutes and will be conducted via video conference or phone (at the respondent's preference) (Attachment B). The interviews will be structured to obtain feedback on the wording and intent of the three test questions (Attachment C). Respondents will also be asked to what extent they are able to track R&D funding and expenditure changes resulting from the pandemic.

To ensure accurate note-taking, discussions will be recorded with the consent of the participants. Before the interviews, the participants will be informed of the intent of the discussion, privacy protections, and voluntary nature of the discussions. They will be asked to verbally confirm their approval to record the discussion, and will also be asked to return a signed copy of the consent form (Attachment D). Participants can decline to be recorded, at which point the recorder will be turned off and note-taking will serve as the only means of documentation.

NCSSES also plans to poll approximately 400 HERD institutions during its annual HERD survey respondent Webinar in September. This annual Webinar helps HERD respondents from both the standard form and short form populations prepare for upcoming survey changes and allows NCSSES to respond to persistent questions from the previous data collection cycle. The HERD Webinar poll will display the three COVID-19 R&D disruption questions after they are refined through the cognitive interviews. All webinar participants can voluntarily participate in the poll. Poll questions will be asked in a pop-up box that will be introduced during the part of the Webinar addressing new questions to the FY 2020 survey. Webinar participants will be given around 2 minutes to indicate their ability to respond to each of the questions if they are included on the FY 2020 HERD survey. Webinar participants will also be able to submit written questions and comments about the COVID-19 R&D disruption questions, which will be addressed by NCSSES. NCSSES will inform the Webinar participants that their responses to the poll are voluntary and will only be used in the aggregate by NCSSES staff for question development purposes.

NCSSES will review the results of the Webinar poll and Q&A to refine the questions for presentation on the survey. Further testing will be conducted if the questions need additional editing. NCSSES will also analyze the responses by institution characteristics such as standard form vs short form and quartiles of total R&D. If responses to the poll indicate that institutions will be unable answer the questions for FY 2020, the questions will not be included on the survey.

Burden Information

For the cognitive interviews, NCSES estimates that 120 institutions will be contacted in the recruiting phase of the project, for approximately 3 minutes per institution for a recruiting burden of 6 total hours. NCSES expects to conduct up to 20 interviews with survey respondents which will require approximately 5 minutes for scheduling per institution (approximately 1.75 total hours). Each interview will last approximately 30 minutes with up to 2 people per institution (20 total hours).

For the webinar poll, NCSES estimates that 400 institutions will participate. Each poll response and time to submit any questions should average no more than 3 minutes per institution for approximately 1,200 total minutes (20 total hours).

Thus, the estimated total burden for this project is about 48 hours (6 recruiting hours + 1.75 scheduling hours + 20 respondent interview hours + 20 Webinar poll/Q&A hours).

Incentive Payments

NCSES will not be offering incentive payments.

Contact Information

The contact persons for questions regarding this research are:

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Attachments

Attachment A: Contact Materials

Attachment B: Cognitive Interview Protocol

Attachment C: Interview Questions on Disruption to R&D Activities Due to the COVID-19
Pandemic

Attachment D: Consent form