

Department of the Treasury
Bureau of Engraving and Printing
Request for OMB Approval of an Information Collection
for Conducting Acuity/Perception Studies

B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

The BEP intends to employ standard statistical methods in analyzing the data obtained through acuity/perception studies. Data will not be collected using probability sampling. Rather data will be collected at several designated sites from participants who will have been recruited. The targeted number of participants is roughly 220-240 with the expectation that at least 200 will provide data for analytic purposes. Study participants will be selected so that across the set of study sites the sample distribution of participants will approximately match that of the general blind and visually impaired population on four specified marginal distributions, reflecting estimates developed from data obtained from the National Health Interview Survey (NHIS) compiled by CDC's National Center for Health Statistics (NCHS).

Information about the perceptibility of developmental tactile features will be collected by the study administrator according to a protocol. This will include the randomized and counterbalanced order of individual sample presentation to the study participants developed under contract for the BEP by Westat, Inc. in collaboration with Lighthouse International. In 2013, this protocol was successfully used at three of the largest national conferences for the blind. The information collected through the acuity studies will be used in conjunction with other data to help direct BEP's efforts to develop a tactile feature to be included in the next currency redesign.

(1) Describe Potential Respondent Universe

Respondent Universe:

As mentioned above, the target population for this study is the general blind and visually impaired population in the U.S. Obtaining data at a national level for purposes of inference to this population would be prohibitively expensive. Nevertheless, it is recognized that it is important to reflect important characteristics of this population to help in guiding the policy decisions that need to be made. As a result, an effort will be made to match marginal population distributions of the target population based on NHIS data, specifically, gender, age, education, and race/ethnicity. Data will also be collected on income level and employment status for comparison with corresponding NHIS estimates.

The study administrator at each site will select a purposive sample of study participants intended to produce a sample that over all sites will produce a sample that approximates the population distribution of the target population. The BEP contracting officer's representative (COR) will approve the final participant selection. Sample sizes will be selected so that overall the number of participants will be roughly 220-240. Of course, the matching of the sample distribution to the population distribution will not be achieved exactly. However, this can be

addressed as part of the analysis through standardization (e.g., using raking so that the contributions from the sample reflect the target population distribution based on the NHIS data).

No organizations, establishments, state or local government units will be providing information. BEP will only be collecting information from individuals who are selected by the study administrator. The expected number of participants is based on the experience of recruiting participants for the first acuity/perception study that was conducted in December 2011.

Expected response rate:

Based on past experience, it is expected that those recruited to participate will have a high participation rate. However, since this study is using purposive selection to identify participants, the response rate is not relevant for assessment purposes.

Collection conducted previously:

The BEP conducted a similar acuity/perception study in December 2011. The report on that study was submitted to the BEP by that study's administrator in January 2012. Because BEP did not obtain OMB/PRA clearance before conducting the study, the results cannot be published or presented in support of any policy, regulatory or other types of decisions or actions on BEP's part. However, OMB reviewed the information informally after the study's completion and agreed that the results were valid and appropriate for limited use. BEP now seeks PRA clearance to conduct an additional acuity study, the results of which may properly be used to guide BEP's decision making on this issue.

(2) Describe Procedures for Collection of Information

Description of Procedures:

Information about the perceptibility of developmental tactile features will be collected by the study administrator according to a protocol, including the randomized and counterbalanced order of individual sample presentation to the study participants, developed for the BEP under contract by Westat, Inc., in collaboration with Lighthouse International. In 2013, this protocol was successfully used at three of the largest national conferences for the blind.

The study administrator will first familiarize each study participant with the position and characteristics of the tactile feature under test. The study administrator will then have the study participant perform a series of tasks with samples of the tactile features being considered. These tasks are designed with the purpose of evaluating the speed and accuracy with which the study participants locate and count the tactile elements of each test sample presented. The study administrator will also ask study participants to directly compare the subjective feel of one test sample versus another. The study protocol, including the randomized and counterbalanced order of individual sample presentation to the study participants, was developed under contract for the

BEP by Westat, Inc., in collaboration with Lighthouse International. In 2013, this protocol was successfully used at the three largest national conferences for the blind.

Pool of Participants:

Participants will be selected by the study administrator, as described in (1) above.

Obtaining Information About Participant's Disabilities:

BEP personnel will not collect any information pertaining to a participant's disability(s).

Method For Collecting Attendees' Feedback About Tactile Features

The study administrator will first familiarize each study participant with the position and characteristics of the tactile feature under test. The study administrator will then have the study participant perform a series of tasks with samples of the tactile features under test, designed to test the speed and accuracy with which the study participants locate and count the tactile elements of each test sample presented. The study administrator will also ask study participants to directly compare the subjective feel of one test sample versus another. The study protocol, including the randomized and counterbalanced order of individual sample presentation to the study participants, was developed for the BEP under contract by Westat, Inc., in collaboration with Lighthouse International. In 2013, this protocol was successfully used at the three largest national conferences for the blind.

Statistical methodology for stratification and sample selection:

Since a purposive sample of study participants is to be selected, the sample selection process, including stratification, is not of relevance here.

Estimation procedure:

Data analyses will be conducted for comparing tactile features after standardizing the sample distribution of participants to achieve consistency with the NHIS estimated U.S. population distribution of the blind and visually impaired. Analyses of variance using a repeated measures design are planned. Other statistical modeling may also be undertaken.

Degree of accuracy needed for the purpose:

Issues related to the variance of estimates are not relevant to this study.

Unusual problems:

There are no unusual problems to be addressed.

Periodic Data Collection Cycles:

Data collection for this study is not being undertaken in cycles.

(3) Describe Methods to Maximize Response Rates

Methods to Maximize Response Rates:

A purposive sample of participants is being selected so there is no focus on maximizing response rates.

Accuracy and Reliability of Information Collected:

Data obtained using purposive sampling will be analyzed using statistical models. The accuracy and reliability of estimates are not a focus related to sample design. Care will be taken in the protocols used in administering the tasks to study participants to help ensure that the data collected are unbiased.

Collections Based on Sampling:

Data are being collected using non-probability selection procedures.

(4) Describe Any Test of Procedures or Methods

Described in #2 above.

(5) Provide the Name and Number of Individuals Consulted on Statistical Aspects of the Design and Name of Agency Unit

BEP has contracted with Westat, Inc. (Rockville, MD) to perform the Acuity Study (the study) described herein. The primary POC's for the study are: Sid Schneider (Westat Sr. Project Manager, SCHNEIS1@WESTAT.COM) and Lad Falat (BEP, COR, Lad.Falat@bep.gov).