

The Census Bureau plans to conduct additional research under the generic clearance for questionnaire pretesting research (OMB number 0607-0725). We will be conducting a usability study to evaluate the search function of the American FactFinder (AFF) Web site and the search strategy of people using the site. The usability interviews will gather user feedback on the search function and will evaluate various search strategies that people use on the Web site.

During July and August 2010, staff from the Census Bureau's Usability Lab will conduct a maximum of 100 usability sessions in the Census Bureau's Usability Laboratory. Participants will be recruited to be diverse in age, race, ethnicity, and gender. Twenty-five participants will be young adults (approximately aged 18-25); 25 will be younger middle-age adults (approximately aged 30-45); 25 will be older middle-age adults (approximately aged 45-60); and 25 will be older adults (over the age of 65). Once the study is complete, age-related differences in search strategy will be assessed. Participants will be recruited through the SRD Usability Lab's database. Each participant will have at least one year of prior experience in navigating different Web sites. However, the participants will not have had prior experience with the AFF Web site. Participants will have no known disabilities.

Each person will participate in two sessions: one over the phone and one in the lab. Prior to coming to the lab, the test administrator will call the participant and will ask him/her to participate in a voluntary phone battery, the Brief Test of Adult Cognition by Telephone (BTACT, Tun & Lachman, 2006). A copy of the BTACT is enclosed. The BTACT will take approximately fifteen minutes and involves the test administrator asking questions and the participant answering verbally. Each lab session will be conducted 4 to 10 days after the phone session and will include a test administrator and one participant, who will be asked to complete tasks on the AFF Web site. These are typical tasks that users do when they come to the site, and we have used them in previous AFF studies.

The BTACT assesses individual differences in cognition among well-functioning adults and is sensitive to normal age-related change in middle and later life. The BTACT covers important areas of adult cognition, including verbal memory (assessed with Word List Recall; Lezak, 1995), working memory span and executive function (assessed with Digits Backward; Wechsler, 1997), reasoning (assessed with Category Fluency; Drachman & Leavitt, 1972 and Number Series; Salthouse & Prill, 1987), and speed of processing (assessed with Backward Counting; Herzog & Wallace, 1997). These cognitive abilities are often crucial to successfully navigating many Web sites, and in this study, we will assess their relevance to successfully navigating the American FactFinder Web site, which people have had great difficulties using (Romano, Olmsted-Hawala, & Murphy, 2009; in prep).

Participants will be asked to think-aloud while they are completing the tasks, and they will also provide feedback about the Web site during a debriefing at the conclusion of the session. Participants will be prompted to think-aloud when they fall silent. Participants will be asked to fill out an initial questionnaire on their experience with computers, the Internet, and Census Bureau terminology as well as a final questionnaire designed to garner final thoughts about and satisfaction with the survey. Copies of the AFF tasks, debriefing questionnaire, satisfaction questionnaire, and computer experience questionnaire are also enclosed. The lab session will take approximately 105 minutes.

Participants will be told that their participation is voluntary and that the information they provide will be confidential. We will provide a \$40 stipend for expenses to each participant who completes a session.

The average time for completion of each participant session (including the phone session and lab session) is estimated to be two hours. Thus, the total estimated burden time for testing is a maximum of 200 hours.

The contact person for questions regarding data collection or statistical aspects for this project is:

Jennifer C. Romano
Human Factors & Usability Group
Statistical Research Division
Room 5K102D
U.S. Census Bureau
Washington, D.C. 20233
(301) 763- 3577
jennifer.romano@census.gov

References

- Drachman, D.A., & Leavitt, T. (1972). Memory impairment in the aged: Storage versus retrieval deficit. *Journal of Experimental Psychology*, 93, 302-308.
- Herzog, A.R., & Wallace, R.B. (1997). Measures of cognitive functioning in the AHEAD study [Special Issue]. *Journal of Gerontology: Social Sciences*, 52B, 37-48.
- Lezak, M.D. (1995). *Neuropsychological assessment*, Third edition. New York: Oxford University Press.
- Romano, J. C., Olmsted-Hawala, E. L., & Murphy, E. D. (in prep). A baseline usability evaluation of the current American factFinder web site. U.S. Census Bureau.
- Romano, J. C., Olmsted-Hawala, E. L., & Murphy, E. D. (2009). A usability evaluation of iteration 1 of the new American factFinder web site: Conceptual design (Statistical Research Division Study Series SSM2009-05). U.S. Census Bureau.
<http://www.census.gov/srd/papers/pdf/ssm2009-05.pdf>.
- Salthouse, T. A., & Prill, K.A. (1987). Inferences about age impairments in inferential reasoning. *Psychology and Aging*, 2, 43-51.
- Tun, P. A. & Lachman, M. E. (2006). Telephone assessment of cognitive function in adulthood: The Brief Test of Adult Cognition by Telephone (BTACTION). *Age and Ageing*, 33, 629-633.
- Wechsler, D. (1997). *Wechsler Adult Intelligence Scale - Third Edition (WAIS)*. New York: Psychological Corporation.