

SUPPORTING STATEMENT FOR PAPERWORK REDUCTION SUBMISSION

(3145-0157)

Card sorting of topic-based navigation for the www.Research.gov website.

A. JUSTIFICATION

1. CIRCUMSTANCES MAKING COLLECTION OF INFORMATION

NECESSARY

On September 11, 1993, President Clinton issued Executive Order 12862, "Setting Customer Service Standards," which clearly defined his vision that the Federal agencies will put the public first. To accomplish this, President Clinton called for a "revolution within the Federal government to change the way it does business." He expected this process to require continual reform of government practices and operations to the end that, "when dealing with the Federal agencies, all people receive service that matches or exceeds the best service available in the private sector."

Section 1(b) of this E.O. requires agencies to "survey customers to determine the kind and quality of services they want and their level of satisfaction with existing services" and Section 1(a) requires agencies to "survey front-line employees on barriers to, and ideas for, matching the best in business." These Presidential requirements established an ongoing need for the National Science Foundation (NSF) to engage in an interactive process of collecting information and using it to improve program services and processes.

The Division of Information Systems (DIS) of NSF maintains the website, Research.gov (<http://www.research.gov>), which is NSF's grants management system that provides access to research-related information and grants management services. The site is a complex website containing multiple service applications. A previous usability study, feedback from the researcher community, ForeSee ratings (ForeSee is an online tool that helps measure customer satisfaction), and the amount of time and resources required by the Foundation's IT help desk to field Research.gov inquiries, highlighted problems users have experienced with the current site's navigation.

DIS is embarking on a redesign of its website to improve user satisfaction, which will include the integration of services from another NSF website, FastLane, into the site's navigation. The information collected from card sorting activities will provide the framework for an updated navigation approach on Research.gov.

2. HOW, BY WHOM, AND PURPOSE FOR WHICH INFORMATION IS TO BE USED

DIS plans to perform a card sorting exercise with researchers to understand how they group and organize the various tasks they perform on Research.gov. This information will provide

DIS with the necessary information to create intuitive navigation on the website. An online card sorting tool will be utilized in order to capture a geographically diverse sample of researchers, as well as, to reduce time needed for analysis.

3. USE OF AUTOMATION

A web-based card sorting application will be used.

4. EFFORTS TO IDENTIFY DUPLICATION

Not applicable.

5. SMALL BUSINESS CONSIDERATIONS

Not applicable.

6. CONSEQUENCES OF LESS FREQUENT COLLECTION

Not applicable.

7. SPECIAL CIRCUMSTANCES FOR COLLECTION

Not applicable.

8. FEDERAL REGISTER NOTICE

The agency's notice, as required by 5 CFR 1320.8(d), was published in the *Federal Register* on January 12, 2011, at 76 FR 2151 and no substantive comments were received.

9. OUTSIDE CONSULTATION

Booz Allen Hamilton will be the contractor performing the card sorting activities.

10. GIFTS OR REMUNERATION

Not applicable.

11. CONFIDENTIALITY PROVIDED TO RESPONDENTS

The performance of any test participant will not be individually attributable. Individual participant names will not be collected during the card sorting session.

12. QUESTIONS OF A SENSITIVE NATURE

No questions of a sensitive nature will be asked.

13. ANNUALIZED ESTIMATE OF BURDEN

Category of Respondent	No. of Respondents	Participation Time	Burden
Card sorting Sessions	60	1/2 hour	30 hours
Totals			30 hours

14. ANNUALIZED COST TO RESPONDENTS

In April 2011, The Chronicle of Higher Education published a table of average faculty salaries by field and rank at doctoral institutions for the academic year of 2012-2013. The data was collected from the “Annual survey by the American Association of University Professors.” The salaries are rounded to the nearest \$100 and adjusted to a nine-month work year.

Cost to Respondents

Average salary of faculty (researchers) as described above	\$90,838.67
Hourly salary based on 1,560 annual hours (40 hours per week for 39 weeks)	\$58.23
Estimate of survey burden (researchers)	30 hours
Cost to researcher respondents	\$1,746.90

15. CAPITAL/STARTUP COSTS

Not applicable.

ANNUALIZED COST TO THE FEDERAL GOVERNMENT

The table below estimates the cost to the government associated with the Research.gov card sorting activities. Costs include contractor support and the participation of federal government employees. Federal employee hourly rate was calculated from OPM’s Salary Table 2014-DCB for salaries effective January 2014. The hourly wage for a GS-13-9 was used.

Cost to the Federal Government

Contractor support for card sorting preparation and analysis	\$13,200
Hourly salary of federal government employee (GS-13-9)	\$54.58
Hours, federal government employee review and oversight	20
Cost of federal government employee review and oversight	\$1091.60
Cost to the Federal Government	\$14291.60

16. CHANGES IN BURDEN

Not Applicable.

18. PUBLICATION OF COLLECTION

Not applicable.

19. SEEKING APPROVAL TO NOT DISPLAY OMB EXPIRATION DATE

Not applicable.

20. EXCEPTION(S) TO THE CERTIFICATION STATEMENT (19) ON OMB 83-I

There are no exceptions.

B. STATISTICAL METHODS

B.1. Universe and Sampling Procedures

It is anticipated that the most of the respondents will be NSF-funded research faculty at research universities, along with general participants within the research community who use NSF's grants management services. Participant names for card sorting have been provided by NSF contacts within the Web Implementation Group (WIG). A representative sample of users from this list will be asked to participate. Additional participants may also be identified from NSF's

Intergovernmental Personnel Assignments (IPAs) which is provided by the division of Human Resource Management.

B.2. Survey Methodology

DIS plans to conduct two card sorting activities with approximately 30 volunteer participants for each. Card sorting activities will be conducted utilizing a web-based card sorting tool. Information will be used to revise the topic-based navigation on the website.

The first activity is an Open Card Sort, where each participant will be given a list of site content items with no pre-established groupings. They will be asked to sort the items into groups that they feel are appropriate, and then describe each group. Open Card Sorting is useful in finding out what structures are easiest for users to navigate.

The second activity is a Closed Card Sort, where each participant will be given a list of site content items with a pre-established set of primary groups. They will be asked to place items into these groups. Closed Card Sorting is useful for testing user satisfaction with proposed website navigation structures.

B.3. Methods to Maximize Response

The activities will be conducted remotely via a web-based card sorting tool. The remote nature of the activities will work to maximize response by allowing greater flexibility for the participants and eliminating expenses related to transportation to a testing facility.

B.4. Testing of Procedures

A trial run of the card sort activities will be conducted with members of the internal team.

B.5. Contacts for Statistical Aspects of Data Collection

Stephanie Yee, project manager in DIS, is the point of contact for data collection and analysis.