

IT Modernization Initiatives at NSF

NSF Grants Conference – June 2015



National Science Foundation
WHERE DISCOVERIES BEGIN

Today's Agenda

- **Public Access**
- **Research.gov Updates**
 - Financial Services
 - Usability
 - Homepage and Navigation/Single Sign-On
 - InCommon
 - Project Reporting
 - Notifications and Requests
- **Proposal Submission Modernization**
 - Automated Compliance Checking Unsolicited Proposals
 - Outreach
 - Survey
 - System Development

Public Access



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NSF Public Access

- Expanding Public Access to the Results of Federally Funded Research (February 22, 2013)
- NSF Public Access Website:
https://www.nsf.gov/news/special_reports/public_access/
 - NSF's Public Access Plan
 - First set of FAQs to be released soon
- Opportunity to provide feedback
 - Draft Public Access policy included in *Proposal & Award Policies & Procedures Guide* (PAPPG) that is currently available for public comment (due July 9, 2015)
 - <http://www.gpo.gov/fdsys/pkg/FR-2015-05-19/pdf/2015-12086.pdf>
- NSF partnered with DOE to develop NSF-PAR, the first NSF publication repository

NSF Public Access: What do I need to do?

- FY 2016 PAPPG proposed language:

“NSF’s policy on public access to copyrighted material (Public Access Policy) reflects the Foundation’s commitment to making certain that, to the extent possible, the American public, industry and the scientific community have access to the results of federally funded scientific research. Pursuant to this policy, awardees must ensure that articles in peer-reviewed scholarly journals and papers in juried conference proceedings:

- *are deposited in a public access compliant repository (as identified in the Public Access Policy);*
- *are available for download, reading, and analysis within 12 months of publication;*
- *possess a minimum set of machine-readable metadata elements as described in the Public Access Policy; and*
- *are reported in annual and final reports with a persistent identifier.*

Either the final printed version or the final peer-reviewed manuscript is acceptable for deposit. NSF’s Public Access Policy applies to awards, funded in whole or in part, as a result of proposals submitted, or due, on or after January X 2016. NSF’s Public Access Policy may be viewed at http://www.nsf.gov/news/special_reports/public_access/index.jsp.

Each NSF grant contains as part of the grant terms and conditions, an article implementing the public access requirements.”

- Requirement: Section 3.1 NSF plan

NSF Public Access Key Principles

- Focus on publications in the initial implementation
- Minimize burden on PI
- Protect PI autonomy
- Evolve incrementally
- Learn from one phase to inform the next
- Leverage existing practices and systems
- Honor NSF's customer service standard
- Provide ways to communicate and petition for a waiver
- Requirement will follow standard procedures and be implemented as part of the NSF PAPPG

NSF Public Access: Next Steps

- Launch NSF's first repository: end of calendar 2015
 - Finalizing wireframes and conducting usability testing
- Effective date of Public Access policy: January 2016
 - Applies to awards made from proposals submitted after January 2016
 - First set of proposals awarded June - July 2016
 - Likely to see first publications requiring deposit in Fall 2016
- Prior to effective date:
 - PIs will have the option to voluntarily deposit publications in NSF-PAR

NSF Public Access: Next Steps

- Project Reporting
 - Reduce burden on PIs by automatically ingesting publication information submitted through NSF-PAR into annual and final project reports
 - Cumulative listing of all products
 - Simplify reporting of products
 - Automatic ingest will only happen for awards that must comply with the new Public Access policy
 - NSF exploring feasibility of extending automatic ingest to additional awards that voluntarily deposit publications in NSF-PAR prior to effective date of new policy

NSF Public Access: My Desktop

PI's can easily submit publications to the NSF Public Access Repository and manage them from a new dashboard area in Research.gov

Public Access Information can be quickly found to help PIs learn the new process, including changes to project reporting

Agency	Agency Tracking Number	PD / PI	Submitting Institution	Descriptive Title of Project	Status	Status Date	Requested Amount
NSF	1234567	Doe, Jane	U of MD College Park	Collaborative Research: Genetic and	Pending	01/11/2014	\$405,800
NSF	7654321	Doe, John			Pending	01/11/2014	\$235,700

Conceptual Screenshots



NSF Public Access: Submit New Publication

NSF Public Access Repository (NSF-PAR)

A partnership with the Department of Energy,
Office of Scientific and Technical Information



Manage Publications Contact FAQ

Logged in as <username>

Submit New Publication

- Retrieve publication info
- Upload final accepted version
- Select award & Acknowledge
- Review & Submit

Enter the DOI Number and click 'Submit' to retrieve the publication information from the publisher. Once you have reviewed the information, click 'Next' to proceed.

* Required fields

* Enter Digital Object Identifier (DOI) Number:

[Where do I find my DOI number?](#)

Publication Title: Proximity effects on the dynamics and outcomes of scientific collaborations

Journal Name: Journal of Psychology

ISSN: 1234-567x

Volume: 25

Issue: 1

Page range or eLocation-ID: 28-32

Publication / Issue Date: 11/04/2014

Author(s): Alessi, Daniel S; Lezama-Pacheco, Juan S; Janot, Noémie; Suvorova, Tanya

Sponsoring Organization(s): National Science Foundation

Description / Abstract: This paper uses path overlap, an innovative measure of functional proximity, to examine how physical space shaped the formation and success of scientific collaborations among the occupants of two academic research buildings. We use research administration data on human subject protection, animal use management, and grant funding applications to construct new measures of collaboration formation and success. The 'functional zones' investigators occupy in their buildings are defined by the shortest walking paths among assigned laboratory and office spaces, and the nearest elevators, stairs, and restrooms. When two investigators traverse paths with greater overlap, both their propensity to form new collaborations and to win grant funding for their joint work increase. This effect is robust across two very differently configured buildings. Implications for scientific collaboration and the design and allocation of research space are considered.

PIs can easily add in their publication info by using their Digital Object Identifier (DOI). Automatically pre-populates fields.

DOIs are issued by the publisher upon publication. If a publisher does not issue DOIs, information can be manually entered as well.

Conceptual Screenshots

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NSF Public Access: Submit New Publication

NSF Public Access Repository (NSF-PAR)

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Submit New Publication

1 [Retrieve publication info](#) 2 Upload final accepted version 3 Select award & Acknowledge 4 Review & Submit

Please upload your final accepted version of your publication.

* Required fields

* Upload Final Accepted Version (PDF format)

[What does NSF do with my file?](#)

fullmanuscript1.pdf

fullmanuscript1.pdf

Publications will become publically available following a 1 year embargo period through the public search site

After quickly looking up and recording the publication information, Pls will submit the Final Accepted Version of their manuscript

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Conceptual Screenshots

NSF Public Access: Submit New Publication

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Logged in as <username>

Submit New Publication

- 1 Retrieve publication info
- 2 Upload final accepted version
- 3 Select award & Acknowledge
- 4 Review & Submit

Please select the award(s) that this publication should be associated with and acknowledge the statement.

* Required fields

* Select Award ID:

Each publication can be associated with one or more Award ID

* Acknowledgement ?

I acknowledge the Federal Government's license as set forth in the "Copyrighted Materials" clause of the NSF Grant General Conditions.

PIs will acknowledge the Federal Government's license as set forth in the "Copyrighted Materials" clause of the NSF Grant General Conditions.

[+ Add additional award ID](#)

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NSF Public Access: Submit New Publication

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Logged in as <username>

Submit New Publication

- 1 Retrieve publication info
- 2 Upload final accepted version
- 3 Select award & Acknowledge
- 4 Review & Submit

DOI Number: 10.1016/j.respol.2014.04.007

Publication Title: Proximity effects on the dynamics and outcomes of scientific collaborations

Journal Name: Journal of Psychology

ISSN: 1234-567X

Volume: 25

Issue: 1

Page range or eLocation-ID: 28-32

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Author(s): Alessi, Daniel S; Lezama-Pacheco, Juan S; Janot, Noémie; Suvorova, Tanya

Sponsoring Organization(s): National Science Foundation

[Print summary](#)

Description / Abstract: This paper uses path overlap, an innovative measure of functional proximity, to examine how proximity affects the dynamics of scientific collaborations among the occupants of two academic research buildings. We use real-world data on the movement of researchers in animal use management, and grant funding applications to construct new measures of collaboration. The measures of collaboration that investigators occupy in their buildings are defined by the shortest walking paths among assigned elevators, stairs, and restrooms. When two investigators traverse paths with greater overlap, both win grant funding for their joint work increase. This effect is robust across two very differently configured buildings. The design and allocation of research space are considered.

Final Accepted Version: [fullmanuscript1.pdf](#)

Award ID: 1400018
Acknowledgement: Federal Government's License = Acknowledged, 3/10/2015
Completed by = Smith, John

Award ID: 1400019
Acknowledgement: Federal Government's License = Acknowledged, 3/17/2015
Completed by = Anderson, Paula

Pls review the publication information and submit it to the NSF Public Access Repository. The information will also be available for project reporting.

Conceptual Screenshots

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Submit >

Feedback and Questions



Research.gov Updates



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Financial Services

- Program income reporting for FY 2015 (due November 14, 2015)
- Financial and accounting system
 - Financial services unavailable from **September 24 to October 5**
 - **Last date to submit drawdowns for awards with cancelling funds is September 23**
- Cash on Hand Validation for FY 2015
 - For the period ending on June 30, 2015: Planned for July 2015
 - For the period ending on September 30, 2015: Planned for January 2016

Usability: Research.gov Homepage

Updated look, feel and branding to NSF

The screenshot shows the Research.gov homepage with the following elements:

- Header:** NSF Research.gov ONLINE GRANTS MANAGEMENT FOR THE NSF COMMUNITY. Navigation links: Log In | Home | Contact | Help | About. Search bar.
- Hero Section:** "Can't remember your NSF password? Find out how you can use your university password to log in to Research.gov. [Learn More/Register](#)"
- Main Content Area (Grid):**
 - Prepare & Submit Proposals:** Prepare, submit and check status of proposals.
 - Check Proposal Status
 - FASTLANE PROPOSAL FUNCTIONS
 - Additional proposal functions
 - Proposal/ Panel Review:** Review proposals, participate in panels.
 - FASTLANE PROPOSAL REVIEW
 - Proposal Review
 - FASTLANE PANEL REVIEW
 - Panelist Functions
 - Awards & Reporting:** Submit project reports, notifications & requests.
 - PROJECT REPORTS
 - Create, edit and submit reports
 - Example Project Reports (Demo site)
 - NOTIFICATIONS & REQUESTS
 - Notifications & Requests
 - FASTLANE AWARD FUNCTIONS
 - Additional award functions
 - Fellowships & Honorary Awards:** Nominate colleagues, apply for awards.
 - Graduate Research Fellowship Program (GRFP)
 - Postdoctoral Fellowships and Other Programs
 - Honorary Awards
- Footer Section:**
 - Administration:** Manage your account and user roles.
 - User Management
 - FASTLANE ORGANIZATION MANAGEMENT
 - Research Administration
 - Manage Financials:** View balances and submit cash requests.
 - Submit or manage payment transactions
 - More about ACMS
 - Program Income Reporting
 - NSF Award Highlights:**
 - Explore thousands of research highlights
 - By scientific field
 - By location
 - Search awards going back to 1994

Simplified navigation

Easy access to FastLane

Enhanced screen width for easier viewing



Usability: Navigation and Single Sign on

The screenshot displays the Research.gov website interface. At the top, there is a header with the Research.gov logo, the text "ONLINE GRANTS MANAGEMENT FOR THE NSF COMMUNITY", and a user welcome message: "Welcome Alan Alphaman | Logout (Home) | My Profile | Contact | Help | About". A search bar is located on the right side of the header.

Below the header is a main navigation menu with five items: "My Desktop", "Prepare & Submit Proposals", "Awards & Reporting", "Manage Financials", and "Administration".

The main content area is divided into sections:

- Project Reporting Dashboard:** This section includes a sub-header "Project Reporting Dashboard" and two bullet points:
 - * Annual, Final and Interim Report: Create, edit and submit reporting requirements
 - * Project Outcomes Report : 1 Total: Due (0) | Overdue (0) | Submitted (1) | Not Yet Due (0)
- NSF FastLane Services:** This section lists three services: "Proposals, Awards & Status", "Research Administration", and "Lookup NSF ID".
- Proposal Status Dashboard:** This section features a dropdown menu for "Agency" set to "All", a date filter for "All Last 6 Months", and a "Search Proposals" button. Below this is a table with the following columns: Agency, Agency Tracking Number, PD/PI, Submitting Institution, Descriptive Title of Project, Status, Status Date, and Requested Amount.

Agency	Agency Tracking Number	PD/PI	Submitting Institution	Descriptive Title of Project	Status	Status Date	Requested Amount
NSF	[REDACTED]	PI1, Test	NSF	Test Proposal - Rgov GAPPS	Pending	01/13/2015	\$50
NSF	[REDACTED]	PI1, Test	NSF	Test Proposal - Rgov GAPPS	Pending	12/07/2014	\$50

Below the table, a note states: "The displayed proposals have had a status change during the last six months (maximum of 10 displayed). Proposal Statuses are updated nightly for NSF, and every Friday for CSREES."

New top level Navigation – Incorporating Single Sign on FastLane Integration

Enhanced screen width for easier viewing

Easy access to FastLane



Usability: InCommon Login

- Researchers and SPOs can use their university ID and password to login to Research.gov via InCommon
 - As of May 2015, 68 institutions are connected with Research.gov
 - Approximately 20 more institutions are in the pipeline
- Goals
 - Convenience to research community
 - Integration opportunities with institutions
 - Lower support costs

Usability: InCommon Login

 **Research.gov**
ONLINE GRANTS MANAGEMENT
FOR THE NSF COMMUNITY

[Log In](#) | [Home](#) | [Contact](#) | [Help](#) | [About](#)

NSF User Log In

There are 2 ways to log in to Research.gov. Use your **NSF ID** or your **organization credentials**.

NSF ID

Last Name:

NSF ID:
 [Forgot my NSF ID](#)

Password:
 [Reset my password](#)

[Log In](#) [Cancel](#)

Organization credentials

Select your organization from the drop-down menu below, to be taken to the InCommon Log In page for your organization.

Pick your organization:

[Log In](#)

If you don't see your organization listed -
[Learn more](#) / [Register for InCommon](#)

[Log In for NSF Staff](#) [Log In for NSF Visitors](#)

Usability: InCommon Login Statistics



InCommon Logins to R.gov

Month	Logins	% of total	% change
April 2015	816	6.5%	↑ 11%
March 2015	735	5.9%	↑ 14%
Feb 2015	642	6.5%	↑ 6%
Jan 2015	604	4.4%	↑ 8%
Dec 2014	559	4.1%	↑ 19%
Nov 2014	469	3.5%	↓ 14%
Oct 2014	541	3.5%	↓ 15%
Sept 2014	637	3.8%	↑ 14%

Top 10 InCommon Leaderboard

Rank	University	Total Logins
1	Texas A&M	54
2	Columbia	51
2	Clemson	51
3	U of Wisconsin – Madison	46
4	University of Michigan	41
4	University of Illinois	41
5	Carnegie Mellon	39
6	Penn State	35
7	Berkeley	34
8	NC State	33



Usability: Project Reporting

- Recent Changes
 - Added a Live Help service (technical support chat) for Project Reporting and at log in
 - Relocated Program Officer comments to increase visibility
 - Clarified language on form fields
 - “Clean up” – Standardize layout, language, navigation, optimize layout for readability
- Upcoming areas of focus
 - Decrease session timeouts and prevent data loss
 - A cumulative display of product Information from previously approved Project Reports
 - Updates associated with Public Access implementation

Notification and Requests

- Three new requests available on Research.gov in April 2015
- The following requests established by the Uniform Guidance must be submitted in Research.gov
 - Salaries of Administrative or Clerical Staff
 - Travel Costs for Dependents
 - Additional categories of participant support costs other than those described in 2 CFR § 200.75 (such as incentives, gifts, souvenirs, t-shirts and/or memorabilia)
- Next set of N&Rs will be migrated in July, the remainder will be migrated incrementally over the next year
- Awardees can view the status of all N&Rs in both FastLane and Research.gov

1

Notifications & Requests Iowa State Un

[Prepare New](#)

Items Needing Action

Showing 1 to 25 of 26 « Prev 1 2 Next>

Award Number	Award Date	Prepared by	Notification / Request Type	Status	Last Action Date	Actions
0911708	08/15/2009	Wiersema, Janice	Salaries of Administrative or Clerical Staff	Forwarded to SPO	03/11/2015	Edit Submit
1461841	09/01/2014	Neese, Barbara	Subawarding, Transferring or Contracting Out Part of an NSF Award	Work in Progress	12/02/2014	Go to FastLane

Features:

- ✓ “Prepare New” or view N&Rs needing action
- ✓ View all N&Rs whether created in Research.gov or FastLane
- ✓ Click the “Go to FastLane” to view N&Rs created in FastLane without signing in again
- ✓ N&Rs organized by type
- ✓ User will be taken to FastLane if they select a N&R that is not yet available in Research.gov

2

Prepare New Notification / Request

[Back to Notifications & Requests](#)

Notifications & Requests is in the process of moving from FastLane to Research.gov. Currently, 3 types of budget modification

Prepare New

Step 1: Select type of change

- Budget Activities
- No-Cost Extensions
- Changes in Objectives, Scope, or Methodology and other Significant Changes
- Changes in PI/PD and co-PI/PD
- Other

Step 2: Select notification / request

Change in Person-Months Devoted to Project
 Pre-award Costs in Excess of 90 Days
 Reallocation of Funds Provided for Participant Support Costs
 Rearrangements/Alterations in excess of \$25,000 (Construction)
 Salaries of Administrative or Clerical Staff
 Travel Costs for Dependents
 Additional categories of participant support costs other than those described in 2 CFR § 200.75

[Go](#)



Feedback and Questions



Proposal Submission Modernization



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Automated Compliance Checking Unsolicited Proposals

Auto-compliance checks for unsolicited proposals – January 26, 2015:

- **Enforce page count rules for the following proposal sections:**
 - Project Description
 - Budget Justification
 - Mentoring Plan
 - Data Management Plan
- **Budget Checks: implement duration and requested amount compliance checks**
 - Example: maximum requested amount cannot exceed \$200,000 for a RAPID proposal
- **Enforce proposal sections depending on the funding mechanism type**
 - Example: do not enforce References Cited for a Conference proposal

Automated Compliance Checking Solicited Proposals

Auto-compliance checks for required sections in solicited proposals beginning April 24, 2015:

- **Error message if the following sections are not included (applies to all solicited proposals)**
 - Project Summary
 - Project Description
 - Budget
 - Data Management Plan
 - Mentoring Plan (if necessary)
- **Warning message if any of the following sections are not included (applies only to solicited Research, RAPID, and EAGER proposals)**
 - References Cited
 - Biographical Sketch(es)
 - Budget Justification
 - Current and Pending Support
 - Facilities, Equipment and Other Resources

Proposal Submission Modernization Outreach

- Two webinars were held to brief the research community
- Attended by 600 researchers and SPO staff
- Robust discussions with excellent, specific feedback and new ideas
 - Desire to minimize the burden of uploading proposal components
 - Efforts to clarify proposal requirements received praise
 - Tailored interfaces that reflect solicitation requirements received constructive feedback

Proposal Submission Modernization Survey

- A PSM Survey will be live soon
- Goals of the survey:
 - Gauge user experience with the current proposal process
 - Gather feedback on the improvements suggested in the first round of outreach
 - Seek input from researchers and SPO staff with experience reviewing and submitting proposals
- Responses will guide the planning and design of future systems

Proposal Submission Modernization Development

- NSF has kicked off the IT project to modernize proposal preparation and submission
- Currently planning the multi-year effort to improve existing functionality and migrate from FastLane to Research.gov
- Planning to use an iterative approach that will allow:
 - NSF to roll out features as they are developed
 - Incorporation of feedback from the user community
 - A smooth transition for users from FastLane

Feedback and Questions



Additional Resources

- ListServ – system_updates-subscribe-request@listserv.nsf.gov – Updates on Public Access, events, and enhancements to Research.gov and/or FastLane