



# NSF EPSCoR Update and Upcoming Funding Opportunities

Oklahoma EPSCoR Annual State Conference  
Norman, OK

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# NSF Statistics



- **FY14 NSF Funding Rate**
  - Proposals received: 48,208
  - Proposals awarded: 11,122 (23%)
- **FY15 Appropriated Budget: \$7.34B\***
  - \$5.93B for Research Support
  - \$866M for Education & Human Resources
  - \$200M for Major Research Equipment

\* Total includes agency operations

Administration: ~2100 staff in Arlington, VA



# EPSCoR Funding



Activity	FY10	FY11	FY12	FY13	FY14	FY15
RII	100.2	106.2	110.6	116.3	132.2	130.1
Co-funding	45.4	39.4	38.8	30.8	25.0	26.6
Outreach/ Workshops	1.5	1.2	1.5	0.5	1.0	0.7
Total	147.1	146.8	150.9	147.6	158.2	159.7

**EPSCoR funding represents ~2.7% of NSF's overall research support (FY 2011-14)**



# EPSCoR Goals

- To catalyze the development of research capabilities and the creation of new knowledge that expands jurisdictions' contributions to scientific discovery, innovation, learning, and knowledge-based prosperity
- To establish sustainable STEM education, training, and professional development pathways that advance jurisdiction-identified research areas and workforce development
- To broaden direct participation of diverse individuals, institutions, and organizations in the project's science and engineering research and education initiatives
- To effect sustainable engagement of project participants and partners, the jurisdiction, the national research community, and the general public through data-sharing, communication, outreach, and dissemination
- To impact research, education, and economic development beyond the project at academic, government, and private sector levels.



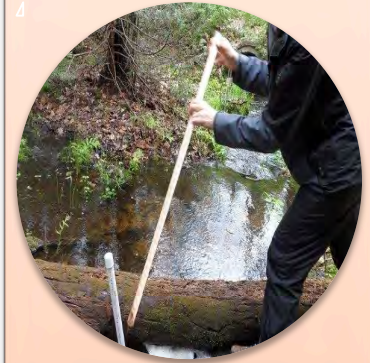
**Discovery &  
Innovation**



**Education &  
Workforce**



**Economic  
Development**



**Quality  
of Life**

**Building Capacity**

# The EPSCoR Team at NSF



**Denise Barnes**



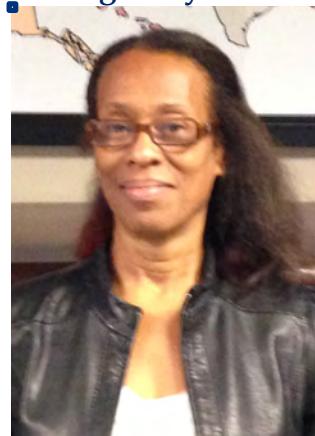
**Yolanda Allen**



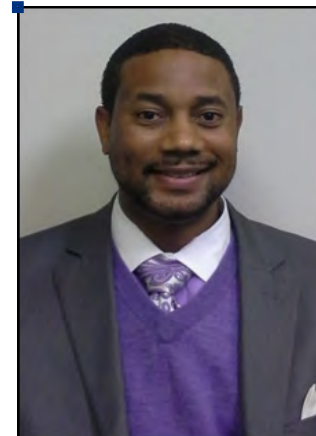
**Liz Lawrence**



**Angela Lyons**



**Paul Trotter**



**Uma  
Venkateswaran**



**Sean  
Kennan**



**Audrey  
Levine**



**Tim  
VanReken**



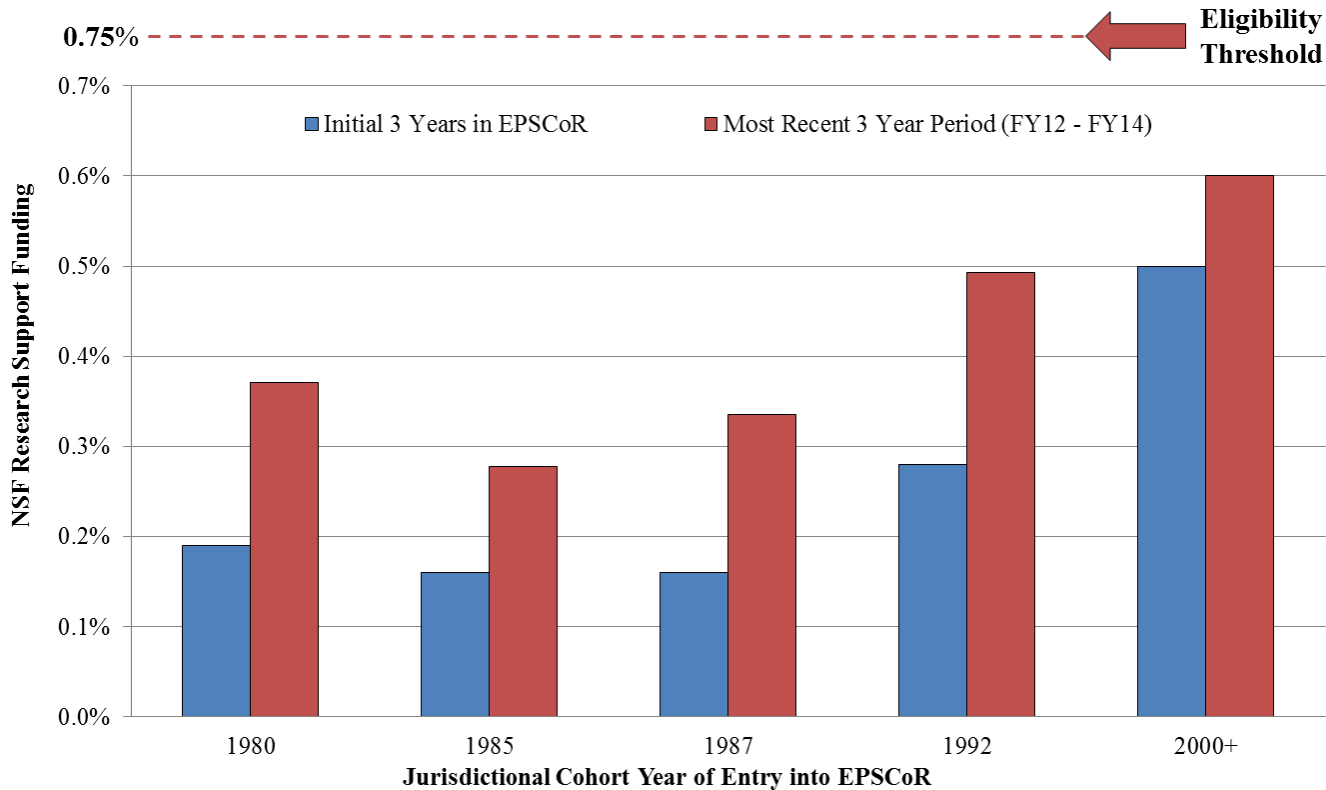
**Bob  
Coyne**



**Sue  
Weiler**



# NSF Funding by Cohort



## OK in Context

- 1985 Cohort
- Initial three years in EPSCoR: 0.29% of NSF research funding.
- Most recent three years: 0.46%.
- Relative increase of ~59%



# EPSCoR Investment Tools

## Research Infrastructure Improvement (RII) Awards

- Supports physical, human, and cyber infrastructure at academic institutions in EPSCoR Jurisdictions

## Co-Funding

- Joint support of research proposals submitted by EPSCoR-jurisdiction researchers to NSF programs
- PIs submit to NSF programs
- Meritorious proposals that require combined support due to budget limitations are reviewed by EPSCoR for possible co-funding; EPSCoR co-funds those that meet goals of increasing competitiveness and broader impacts

## Outreach & Workshops

- Support of outreach activities by NSF program and professional staff; Support of strategic planning and capacity-building workshops
- “Science: Becoming the Messenger” - workshop for researchers to communicate science research



# RII Track-2: Focused EPSCoR Collaborations (NSF 16-511)



- Combine small group expertise distributed in different EPSCoR jurisdictions into a “critical mass” capable of competing for large scale NSF or other agency competitions.
- Goal is to promote productive, balanced inter-jurisdictional collaborations that are capable of sustained activities beyond the award period.
  - Emphasis on the development of junior faculty
  - Award amount linked to # of participating jurisdictions
- Investigator-driven; aimed at disciplinary collaborations in focus areas aligned with NSF and national priorities:
  - Understanding the Brain
  - Sustainable Food, Energy, and Water Systems
- Institutional submission limit: One proposal as lead.
  - Consult solicitation for additional restrictions
  - Letters of Intent due January 11, 2016
  - Proposals due February 4, 2016



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# Co-Funding Essentials

- Reviewed and Recommended for Funding within NSF Directorates and Offices
- Combined leveraged support necessary for funding
- Program Officers contact NSF EPSCoR Office via their Directorate/Office coordinator
- Some characteristics that favor Co-funding:
  - New PIs
  - Collaborative
  - Multidisciplinary
  - Synergistic w/ NSF
  - Broaden participation
  - Instrumentation
  - Research for Students/Teachers
  - Integration of R&E



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# EPSCoR Workshops

- In response to a FY15 Committee of Visitors recommendation, EPSCoR is encouraging greater distribution and awareness of workshop opportunities.
- We want more workshop ideas!!
  - Workshop Opportunities Solicitation: [NSF 12-588](#)
- Outreach Requests:  
[http://www.nsf.gov/od/oia/programs/epscorFY2016\\_Outreach\\_Procedures.pdf](http://www.nsf.gov/od/oia/programs/epscorFY2016_Outreach_Procedures.pdf)

24th National NSF EPSCoR Conference

Home Schedule Register Hotels Travel Guidebook Area Attractions

Collaboration: Advancing the Role of Science in the Service of Society

Contact your project administrator to register

UNIVERSITY OF SOUTH DAKOTA

Workshop on Germanium-Based Detectors and Technologies - 2014

14-17 September 2014  
Muenster University Center (MUC),  
The University of South Dakota

LIVING ON EARTH III

VIRGIN ISLANDS • 2012

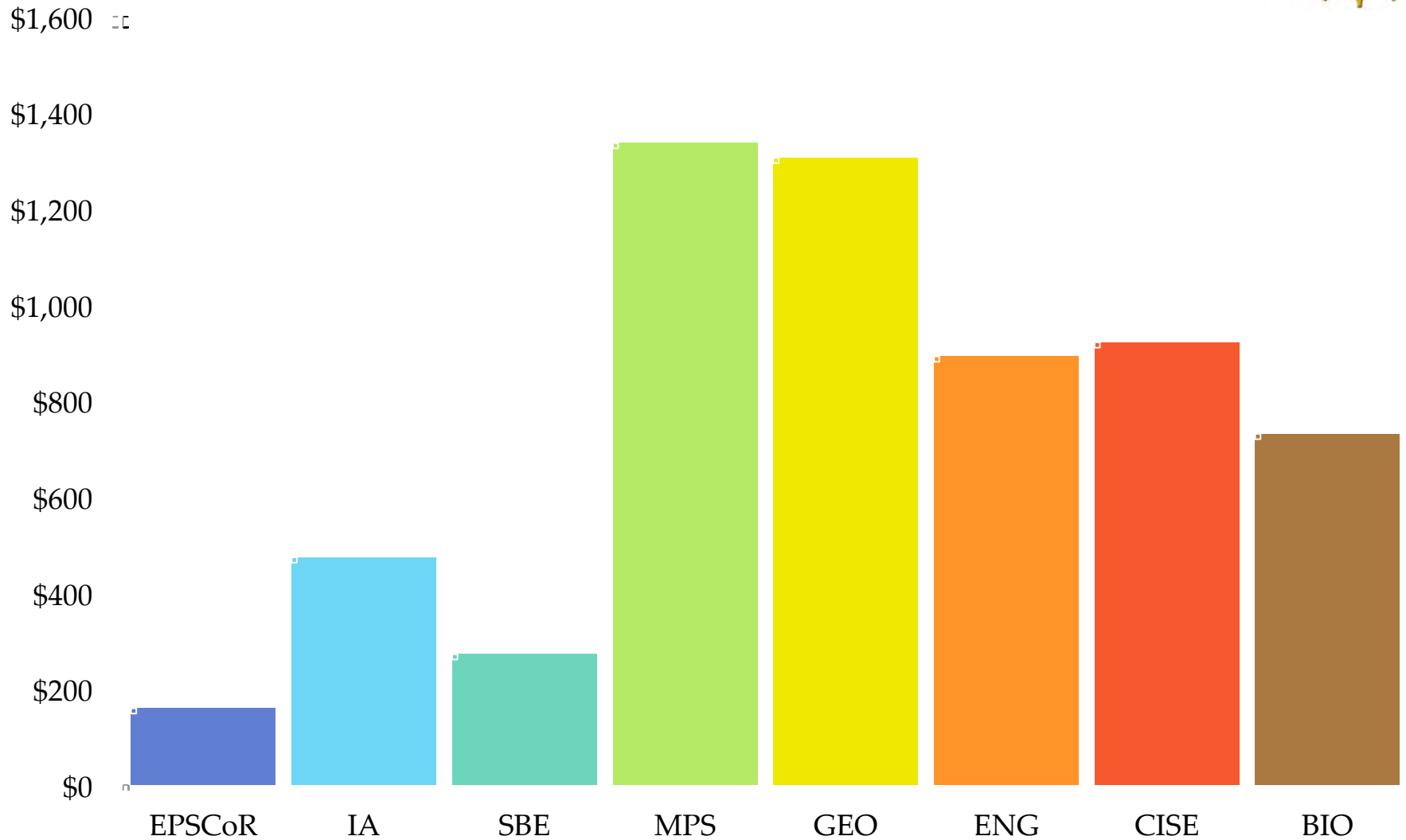
bioinformatics

Little Rock, Arkansas  
March 3-5  
2013

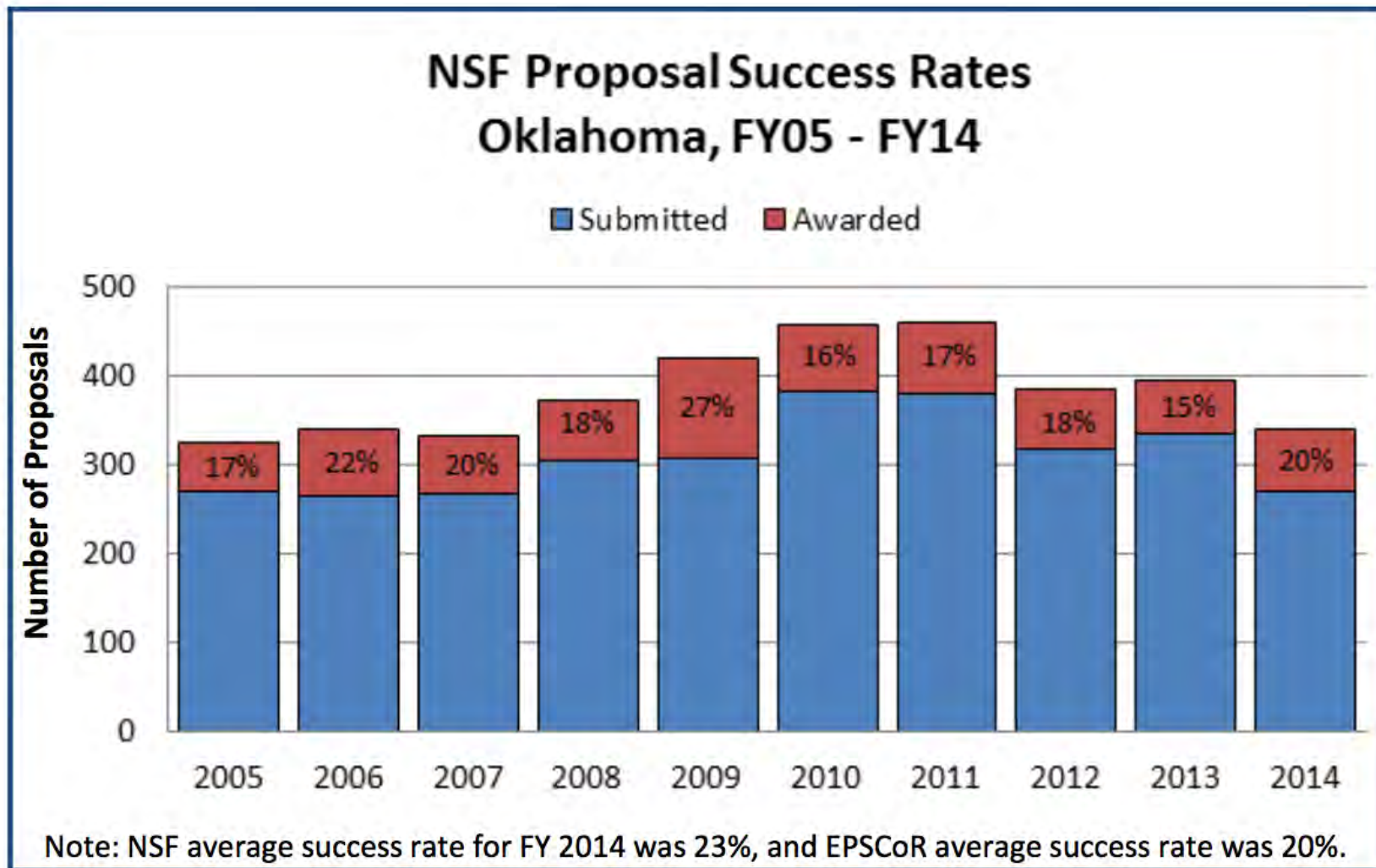
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# FY15 R&RA by Directorate/Office, \$M



# NSF Proposal Success Rates in Oklahoma



For LOTS of fine-scale data on funding rates: <http://dellweb.bfa.nsf.gov/awdfr3/default.asp>



# What Can You Do?

- Stay abreast of funding priorities and opportunities
- Communicate with program officers (Disciplinary and EPSCoR)
- APPLY!!! And write to the solicitation
- Revise and resubmit
- Participate in grantsmanship workshops
- Utilize NSF EPSCoR outreach
- Serve as a reviewer
- Serve as a NSF Rotating Program Officer
- EPSCoR contact: Tim VanReken (tvanreke@nsf.gov)



# Finding Funding Opportunities



http://nsf.gov/func Award and Administration Gui... US NSF - Funding

**NSF** National Science Foundation  
WHERE DISCOVERIES BEGIN

QUICK LINKS

SEARCH

HOME FUNDING AWARDS DISCOVERIES NEWS PUBLICATIONS STATISTICS ABOUT NSF FASTLANE

**Funding**

Find Funding

A-Z Index of Funding Opportunities

Recent Funding Opportunities

Upcoming Due Dates

Advanced Funding Search

Interdisciplinary Research

How to Prepare Your Proposal

About Funding

Proposals and Awards

Proposal and Award Policies and Procedures Guide

Introduction

Proposal Preparation and Submission

- Grant Proposal Guide
- Grants.gov Application Guide

Award and Administration

- Award and Administration Guide

Award Conditions

Other Types of Proposals

Merit Review

NSF Outreach

Policy Office

**Find Funding**

Get NSF funding information by [email](#) or [RSS](#).

FUNDING OPPORTUNITY SEARCH

Keyword:\*

Search:  Funding Opportunities (program synopses and solicitations)  Award Database (titles and abstracts of previous years' awards)

Search Reset

[Advanced Funding Search](#)

OTHER WAYS TO FIND FUNDING

[A-Z Index](#)  
Index of words appearing in the titles of all funding opportunities.

**Special Programs**

- [For Undergraduate Students](#)
- [For Graduate Students](#)
- [For Postdoctoral Fellows](#)
- [For K-12 Educators](#)
- [Small Business Programs](#)
- [For Veterans](#)
- [Broadening Participation](#)

**Program Areas**

- [Crosscutting and NSF-wide](#)
- [Biological Sciences](#)
- [Computer & Information Science & Engineering](#)
- [Education and Human Resources](#)
- [Engineering](#)
- [Environmental Research & Education](#)
- [Geosciences](#)
- [International & Integrative Activities](#)
- [Mathematical & Physical Sciences](#)
- [Social, Behavioral & Economic Sciences](#)

100%

• Select



# Finding Funding Opportunities



**Funding**

**Crosscutting and NSF-wide Active Funding Opportunities**

This site provides program information for activities sponsored by more than one NSF organization. In addition, all NSF organizations accept proposals that cut across organizational and programmatic boundaries. We suggest that those seeking support for interdisciplinary work not described here consult the NSF program site(s) closest to the science, engineering or education focus of the planned work and contact relevant program officers to discuss submission of a proposal.

Org: Crosscutting and NSF-wide Status: Active

Get Crosscutting Program Annmnts & Info Updates by Email  RSS

Sorted by Title. Click column headings to sort.

Key:  Crosscutting |  NSF-wide |  Grants.gov submission required

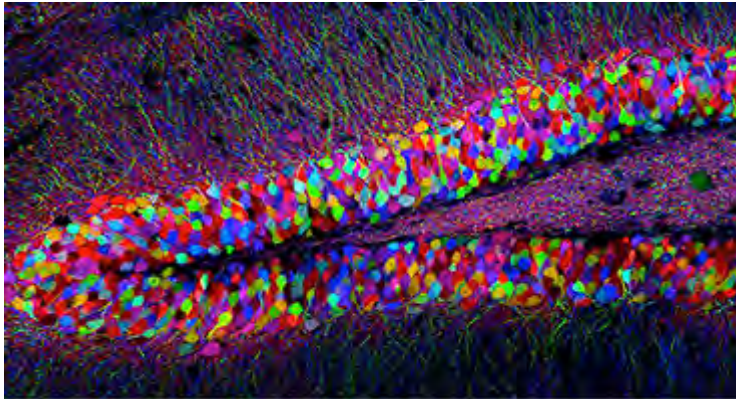
Title	Program Guidelines	Due Dates
<a href="#">Academic Research Infrastructure Program: Recovery and Reinvestment (ARI-R2)</a>	<a href="#">09-562</a>	Current but no longer receiving proposals
<a href="#">ADVANCE: Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers</a>	<a href="#">12-584</a>	
<a href="#">Algorithms for Threat Detection (ATD)</a>	<a href="#">12-502</a>	Waiting for new publication
<a href="#">Building Community and Capacity for Data-Intensive Research in the Social, Behavioral, and Economic Sciences and in Education and Human Resources (BCC-SBE/EHR)</a>	<a href="#">14-517</a>	
<a href="#">Catalyzing New International Collaborations (CNIC)</a>	<a href="#">13-605</a>	Full Proposal: April 22, 2014
		Full Proposal: July 22, 2014

Don't forget about Student and Postdoc Opportunities!

# NSF FY 2016 Initiatives



## Understanding the Brain



\$144 M

## Risk and Resilience



\$58 M

## INFEWS



Innovations at the Nexus of  
Food, Energy, and Water Systems

\$75 M

## NSF INCLUDES



Inclusion across the Nation of  
Communities of Learners that have  
been Underrepresented for Diversity in  
Engineering and Science

\$15 M

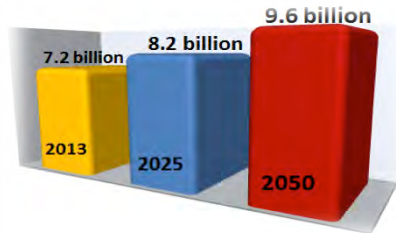


# Food, Energy, and Water Systems

## THE 2050 PICTURE

### WORLD'S POPULATION BOOMS

**>9 BILLION by 2050**



Larger, more urban and richer population

Food production will need to **increase**

**~60%**



2010



2050

**FOOD**

Water demand will **increase**

**~30%**



2010



2050



Energy production will need to **increase**

**~50%**



2010



2050

**ENERGY**

**WATER**

Image credit: <http://www.aquate.com>



# Risk and Resilience

- Creating new approaches and engineering solutions to make interdependent critical infrastructure systems resilient
- FY14 – FY15
  - Resilient Interdependent Infrastructure Processes and Systems (RIPS) – Pilot in 2014 by CISE, ENG, SB
  - Critical Resilient Interdep. Infrastructure Systems and Processes (CRISP)
  - Prediction of and Resilience against Extreme Events (PREEVENTS)
- FY16
  - Core programs in CISE, ENG, GEO, MPS, SBE
  - CRISP and PREEVENTS (GEO-focus); workshops and RCNs
  - Hazards SEES, Natural Hazards Eng Res Infrastructure and Res (NHERI), Cyber Physical Systems (CPS)



# PAPPG Revisions



- PAPPG policies effective for all proposals submitted on or after January 25, 2016.
  - [http://www.nsf.gov/pubs/policydocs/pappguide/nsf16001/gpg\\_print.pdf](http://www.nsf.gov/pubs/policydocs/pappguide/nsf16001/gpg_print.pdf)
- Significant changes and clarifications available here:
  - <http://www.nsf.gov/pubs/policydocs/pappguide/nsf16001/sigchanges.jsp>

# Merit Review Process



Video can be found here:

[http://www.nsf.gov/news/mmg/mmg\\_disp.jsp?med\\_id=76467](http://www.nsf.gov/news/mmg/mmg_disp.jsp?med_id=76467)



**Thank you!**

