

# STEM Learning and Research (STELAR) Center @ Education Development Center

NSF ITEST Solicitation Webinar

Thursday, June 16<sup>th</sup> 2016



# Who We Are

- STEM Learning & Research Center (STELAR) at Education Development Center, Waltham, MA
- Supporting the program and its grantees since 2003
- Available to assist considering submitting an ITEST proposal

# Find Resources on STELAR Website

<http://stelar.edc.org/>



The screenshot shows the homepage of the STELAR website. At the top left is the STELAR logo, which consists of a cluster of colorful dots followed by the word "stelar" in a sans-serif font, with "STEM Learning and Research Center" underneath. To the right of the logo are links for "Log in OR Join" and "Contact Us". Below the logo is a navigation menu with links for "Home", "About", "News", "Events", "Opportunities", "Projects", and "Resources". The main content area features a "FEATURED EVENT" section with the title "STELAR WEBINAR: 2016 NSF ITEST SOLICITATION INFORMATION". Below the title is a short description: "Join us as NSF Program Officers discuss the solicitation. Proposals are due August 10th!". A green button labeled "Learn more »" is positioned below the text. To the right of the text is a large image of the NSF logo, which is a blue globe with yellow stars and the letters "NSF" in white. Below the featured event section is a tagline: "Helping prepare a diverse, skilled, and innovative STEM workforce." To the right of the tagline is a search bar with the text "TEXT SEARCH" and a magnifying glass icon, and a link for "ADVANCED SEARCH". At the bottom of the page is a row of five icons with corresponding text: a film strip icon for "How STELAR Can Help You", a document with a magnifying glass icon for "ITEST Program Findings", a briefcase icon for "ITEST Proposal Development", a cluster of dots icon for "STELAR Materials", and an envelope icon for "Join Our Mailing List".

# Get Ideas for Designing your Proposal

stelar  
STEM Learning and Research Center

Home About News Events Opp

FEATURED EVENT

STELAR WEBINAR: 2016 NSF ITEST SOLICITATION INFORMATION

Join us as NSF Program Officers discuss the solicitation. Proposals are due August 10th!

Learn more »

Helping prepare a diverse, skilled, and innovative STEM workforce.

How STELAR Can Help You

ITEST Program Findings

ITEST Proposal Development

STELAR Materials

Log In OR Join | Contact Us

Are you considering submitting a proposal to ITEST? You have come to the right place! The resources under each heading below provide valuable information to help you develop a competitive proposal:

- The ITEST solicitation webinars provide an overview of the ITEST program as well as details on what to include, and what not to include, in your proposal.
- STELAR themed webinars demonstrate how previous ITEST projects have tackled topics that are of interest to the ITEST program.
- Data and Info Briefs are publications that summarize the activities of the ITEST projects in a given year. Knowing what has been done previously may help you develop an innovative proposal.
- Other publications provide background information on topics that are of interest to the ITEST program.

In addition, we suggest you also peruse the other areas of the STELAR website to learn more about your specific area of interest. We encourage you to browse the [project profiles](#) to see what projects have already been funded; read [ITEST Program Findings](#) to discover what the previously funded ITEST projects have learned from their research and implementation efforts; and search within [resources](#) to find *instruments* and *curricular materials* used and developed by ITEST projects.

+ GET TO KNOW ITEST

+ PREPARE YOUR PROPOSAL FOR SUBMISSION

+ DEVELOP A ROBUST RESEARCH DESIGN

+ CREATE AN EFFECTIVE EVALUATION STRATEGY

+ CONNECT WITH PARTNERS

# Browse Project Profiles

The screenshot displays the Stelar website's 'Projects' page. At the top, the 'stelar' logo is visible, along with navigation links for 'Log In OR Join' and 'Contact Us'. The main navigation bar includes 'Opportunities', 'Projects' (highlighted with a red circle), and 'Resources'. The page title is 'Projects', with a 'Download Results' link. A search section titled 'SEARCH FOR PROJECTS' includes a 'TEXT SEARCH' input field and several filter categories: DISCIPLINE(S), PROJECT PARTICIPANT(S), PROJECT GRADE SPAN(S), PROJECT SETTING(S), STATES WHERE WORK OCCURS, and PROJECT STATUS. 'Apply Filters' and 'Clear Filters' buttons are at the bottom of the search section. A project profile is shown with two subject filters: 'Computer Science' and 'Mathematics'. The profile text describes a multi-faceted summer program for girls, mentioning Whiteriver Unified School District and ASU Polytechnic and Mercado. It lists project work states (AZ, CO), disciplines (Computer Science - general), other disciplines (gaming and simulations, multimedia - audio, video and animation, programming), participants (Educators, Students, Girls), grade span (Middle school (6-8), High school (9-12)), setting (Informal Education), and geographic locations (Rural, Suburban, Urban). A 'VIEW RELATED CONTENT »' button is at the bottom left. On the right, there is an NSF logo and a 'Join Our Mailing List' button.

**stelar**

Log In OR Join | Contact Us

Opportunities **Projects** Resources

## Projects

[Download Results](#)

**Computer Science**

**Mathematics**

Whiteriver Unified School District, and ASU Polytechnic and Mercado), four revised courses, an 80-hour professional development course, an online learning community, and an annual cross-site event. The young women participate in four technology courses over a one-year period (e.g. Introduction to Social Justice; SCRATCH, Introduction to Second Life, Second Life Capstone), ending with a 4-8 week summer internship at a local business site. Professional development for teachers utilizes a hybrid approach that incorporates an 8-hour face-to-face course and 100 self-paced online activities. The COMPUGIRLS Learning Community (CLC) is an online learning platform designed to support both students and teachers with social networking, training webinars, and opportunities to showcase completed projects. This project will support nearly 700 students and teachers. It is anticipated that the research studies will help increase understanding of the effect of the COMPUGIRLS program on self concept in technology, academic possible selves, and self regulation in girls of color, in addition to the affects of the model on indigenous girls' cultural selves as expressed in understanding and commitment to cultural traditions. Research findings will be disseminated through the National Center for Women and Information Technology, peer reviewed journals, conferences and meetings, and the COMPUGIRLS Learning Community.

**PROJECT WORK STATE:**  
AZ  
CO

**DISCIPLINE:**  
Computer Science - general

**OTHER DISCIPLINES:**  
Computer Science - general  
Computer Science - gaming and simulations  
Computer Science - general skills and mathematics  
Computer Science - multimedia - audio, video and animation  
Computer Science - programming

**PROJECT PARTICIPANT(S):**  
Educators  
Students  
Girls

**PROJECT GRADE SPAN:**  
Middle school (6-8)  
High school (9-12)

**PROJECT SETTING:**  
Informal Education

**GEOGRAPHIC LOCATION(S):**  
Rural  
Suburban  
Urban

**PROJECT STATUS:**

Multi-faceted summer program for girls, low-income families and with the knowledge, skills,

**SEARCH FOR PROJECTS**  
Multiple criteria within a field is an OR condition. Multiple fields are AND conditions.

TEXT SEARCH

+ DISCIPLINE(S)

+ PROJECT PARTICIPANT(S)

+ PROJECT GRADE SPAN(S)

+ PROJECT SETTING(S)

+ STATES WHERE WORK OCCURS

+ PROJECT STATUS

Apply Filters Clear Filters

NSF

Join Our Mailing List

VIEW RELATED CONTENT »

# Read ITEST Program Findings

**stelar**  
STEM Learning and Research Center

Home About News Events Op

Log in OR Join | Contact Us

**FEATURED EVENT**  
**STELAR WEBINAR: 2016 NSF ITEST SOLICITATION INFORMATION**  
Join us as NSF Program Officers discuss the solicitation. Proposals are due August 10th!  
[Learn more >](#)

Helping prepare a diverse, skilled, and innovative STEM workforce.

- How STELAR Can Help You
- ITEST Program Findings**
- ITEST Proposal Development
- STELAR Materials

## ITEST Program Findings

Share / Save

Since its inception in 2003, the ITEST program has focused on promoting STEM workforce development, and has also contributed to related fields such as professional development, afterschool, youth motivation, evaluation, and STEM content. ITEST PIs and evaluators document, evaluate, and research the outcomes of ITEST projects for youth and educators, and present their findings in webinars, conferences, reports, journal articles, and other media. Browse through the content areas here to see what the ITEST program has learned from 2010-present. To locate ITEST program findings prior to 2010, browse the STELAR resources or contact [stelar@edc.org](mailto:stelar@edc.org). Have something to add? Let us know at [stelar@edc.org](mailto:stelar@edc.org).

- + ACCESSIBILITY, CULTURAL RELEVANCE, EQUITY, AND DIVERSITY
- + EDUCATOR PROFESSIONAL DEVELOPMENT
- + EVALUATION
- + STEM CAREER OPPORTUNITIES AND WORKFORCE DEVELOPMENT
- + STEM CONTENT AND STANDARDS
- + STEM IN AFTERSCHOOL AND INFORMAL LEARNING

# Resource Library – Curricula & Instruments

The screenshot displays the STELAR website's 'Resources' page. At the top, the STELAR logo is visible. The navigation menu includes 'News', 'Events', 'Opportunities', 'Projects', and 'Resources', with 'Resources' circled in red. Below the navigation, there is a search bar and a 'Download Results' link. A grid of six colored buttons provides filters for 'Events', 'News', 'Instruments', 'Publications', 'Opportunities', and 'Curricular Materials'. A search section titled 'SEARCH FOR RESOURCES' includes a text search box and filter options for 'RESOURCE TYPE', 'DISCIPLINE(S)', and 'TOPIC(S)', with 'Apply Filters' and 'Clear Filters' buttons. A news article titled 'National Science Foundation - Dear Colleague Letter: Fundamental Research to Improve STEM Teaching and Learning, and Workforce Development for Persons with Disabilities' is featured, dated April 5, 2016, with an NSF logo and a 'READ MORE »' link. On the right side of the page, there is a large NSF logo graphic and a secondary search bar with 'ADVANCED SEARCH' options. At the bottom of the right sidebar, there are three icons for 'Proposal Development', 'STELAR Materials', and 'Join Our Mailing List'.

# Connect with others via the People Connector

<http://stelar.edc.org/opportunities/people-connector-directory-itest-proposals>

People Connector Form




**STELAR People Connector Directory - Add your Information**

The purpose of this directory is to connect individuals looking for partners or tools for their ITEST proposals with those who can provide partnership or tools (e.g., a school district looking for a research methodologist, a community-based organization looking for an external evaluator).

Please complete this form if you are looking for or can provide specific expertise for ITEST proposals. The information you provide will be publicly available and accessible via the STELAR website.

\* Required



STEM Learning and Research Center

First name \*

Last name \*

Email \*

Organization / Institution \*

City \*

State \*

Website

Listing Type \*

Select one listing type for this submission. If you are both LOOKING FOR and PROVIDING expertise, please complete this form for one, and then submit an additional form for the second.

I am LOOKING FOR expertise

I am PROVIDING expertise

People Connector Directory



STELAR People Connector Directory

File Edit View Insert Format Data Tools Form Add-ons Help All changes saved in Drive

Comments Share

The purpose of the People Connector Directory is to connect individuals looking for partners or tools for their ITEST proposals with those who can provide partnership or tools (e.g., a school district looking for a research methodologist, a community-based organization looking for an external evaluator). The information provided is publicly available and accessible via the STELAR website. You can get notified of additions to the Directory by clicking on 'Tools' and 'Notification Opportunities' above (you must sign in to a google account in order to access the Tools).

Note: STELAR and NSF do not endorse the credibility or expertise of any specific individuals on the compiled list.

Timestamp	First name	Last name	Email	Organization / Institution	City	State	Website	Listing Type	Type of Expertise	Expertise Details
9/8/2014 16:42:48	Anita	Krishnamurthi	akrishnamurthi@atersch	Afterschool Allian	Washington	DC	<a href="http://www.atersc">http://www.atersc</a>	I can PROVIDE expertise	Researcher, Informal ed	Please reach out if you're looking f
9/9/2014 9:07:53	Bonnie	Swan	bonnie.swan@ucf.edu	University of Centr	Orlando	Florid	<a href="http://education.us">http://education.us</a>	I can PROVIDE expertise	Evaluator, Researcher	Program Evaluation and Education
9/9/2014 9:19:45	Cynthia	Tananis	tananis@pitt.edu	University of Pitts	Pittsburgh	PA	<a href="http://www.ceac.p">http://www.ceac.p</a>	I can PROVIDE expertise	Evaluator, Researcher, E	Cynthia A. Tananis, Ed.D., founde
9/9/2014 12:09:42	Amy	Grack Nelson	agnelson@smm.org	Science Museum	St Paul	MINN		I can PROVIDE expertise	Evaluator, Evaluation ins	Expertise in the development and
9/9/2014 17:00:08	Troy	Sadler	sadler@missouri.edu	University of Miss	Columbia	MO	<a href="http://education.m">http://education.m</a>	I can PROVIDE expertise	Evaluator	The ReSTEM Institute: Reimaginin
9/10/2014 18:56:16	Vega	Vanessa	vanessa@rockman.com	Rockman et al.	San Francisco	CA	<a href="http://www.rockman.co">www.rockman.co</a>	I can PROVIDE expertise	Evaluator, Researcher, f	Can provide expertise on: evaluatio
9/16/2014 10:00:21	Kevin	Glass	glass@educationconnect	Center for Resear	Litchfield	CT	<a href="http://www.educationcon">www.educationcon</a>	I can PROVIDE expertise	Evaluator	We can provide both internal and e
9/16/2014 13:14:04	Juan	Concepcion	rubricsolution@gmail.com	Concepción-Card	Manati	Puert	<a href="http://www.rubricsolutio">www.rubricsolutio</a>	I am LOOKING FOR expertise	Evaluator, Informal educ	Proven educational STEM practice
9/17/2014 15:21:28	Kristin	Bass	kristin@rockman.com	Rockman et al	San Francisco	CA	<a href="http://www.rockman.co">www.rockman.co</a>	I can PROVIDE expertise	Evaluator, Evaluation ins	Rockman et al is an independent n
9/17/2014 10:39:14	Karen	Yanowitz	kyanowitz@astate.edu	Arkansas State U	Jonesboro	AR		I can PROVIDE expertise	Evaluator, Researcher	I have two ITEST grants and am ve
9/18/2014 16:41:00	Jared	Ozga	jozga@wics.org	Wildlife Conservat	New York	NY	<a href="http://wics.org">wics.org</a>	I am LOOKING FOR expertise	Informal education site,	Looking to forge partnerships with
9/22/2014 15:26:32	Robinson	Robinson	romrobinson@lewislatimer	Lewis H. Latimer	Chelsea	Mass	<a href="http://www.lewislatimer">www.lewislatimer</a>	I can PROVIDE expertise	Informal education site	I can provide information on how to
10/22/2014 16:12:12	Teresa	Reagan	treagan@ncat.edu	NC A&T State Uni	Greensboro	NC		I am LOOKING FOR expertise	Evaluator	We are searching for an external e
11/12/2014 21:47:15	Aaron	Parker	Aaron.Ti.Parker@gmail.c	University of Guan	ASAN	Guam		I am LOOKING FOR expertise	Evaluator, Formal educa	Looking for help putting together a
2/17/2015 12:30:42	Jana	Craig-Hare	janach@ku.edu	University of Kans	Lawrence	KS	<a href="http://www.altec.org">www.altec.org</a>	I can PROVIDE expertise	Evaluator, Researcher, Evaluation instrument	
2/17/2015 16:23:36	Jaclyn	Ocuppaugh	jo2424@tc.columbia.edu	Teachers College,	New York	New York		I can PROVIDE expertise	Evaluator, Researcher, Evaluation instrument	



# STELAR is on Social Media – Stay in Touch!

**Contact us:** [stelar@edc.org](mailto:stelar@edc.org)

**“Like” us:** <https://www.facebook.com/stelarctr>

**Follow us:** [https://twitter.com/STELAR\\_CTR](https://twitter.com/STELAR_CTR)

**Watch us:** <https://vimeo.com/stelarcenter/videos>

**Find resources:** <http://stelar.edc.org/>



# **Innovative Technology Experiences for Students and Teachers (ITEST) Program**

Division of Research on Learning  
in Formal and Informal Settings

Program Solicitation: NSF 15-599

Proposals Due August 10, 2016

# Changes For This Solicitation

- Clarification of expectations for research plans and project evaluation.
- Addition of solicitation specific review criteria related to broadening participation.

Note: No new proposals for the ITEST resource center will be considered.

# Aim of the ITEST Program

Ensure a high-quality STEM workforce by supporting projects that:

- Increase student awareness of career opportunities in STEM and related fields.
- Motivate students to pursue appropriate educational pathways to STEM-related careers.
- Provide technology-rich experiences that develop disciplinary knowledge, practices, and non-cognitive skills needed in STEM fields.

# STEM-Related Workforce Fields

- Traditional STEM Disciplines
- Information and Communications Technology (ICT)
- Computing, Computer Sciences, Data Analytics, and related fields.
- Professionals at all levels, including technicians, technologists, scientists, engineers, computer scientists, and mathematicians.

# ITEST Projects...

- Must involve students.
- Are informed by relevant research.
- Will focus on workforce development for youth or school-to-work transitions.
- Will conduct foundational or design-based research of strategies, conditions and contexts that improve student STEM learning pathways and STEM-focused career preparations and mentorships.
- Must align with one or more guiding questions in the solicitation.

# **ITEST is particularly interested in:**

- Broadening participation of students from groups underrepresented in STEM-related education and career domains.
- Projects that examine various forms of mentorship or the effectiveness of adult volunteers with relevant disciplinary expertise.
- Projects that improve students' critical thinking skills that transfer across disciplines and into career settings.
- Projects that directly involve students with business and industry through partnerships.

## **“Encouraged” are Projects that...**

- Bring together researchers in STEM education, STEM disciplines, career development, psychology, sociology, anthropology, and related fields.
- Engage students in use of cutting-edge technological tools, the computer sciences, or innovative applications of technology for work-based or problem-based learning.



# Two Types of Projects Supported

*Strategies* projects that address the creation and implementation of innovative workforce-related activities or programs.

- Awards for up to \$1.2M for projects lasting up to 3 years.
- Approximately 15-20 projects to be supported.

*SPrEaD* (**S**uccessful **P**roject **E**xpansion and **D**issemination) projects that support the wider and broader dissemination and examination of innovative strategies.

- Awards for up to \$2M for projects lasting 3-5 years.
- Approximately 5-10 projects to be supported.

# **Projects must align with one or more of the guiding questions listed in the solicitation.**

- Experiences that foster student competency, motivation, or persistence to pursue a STEM-related career.
- Instructional and Curricular Models
- Roles of business and workforce members
- Strategies for parents, mentors, & caregivers
- Strategies for principals, counselors, & other school administrators
- Engaging diverse underrepresented populations



**Questions?**

# All proposals should...

- Draw on existing theory and evidence to design and develop strategies.
- Describe the intervention/learning environment
- Describe the questions, instruments, methods, and analyses to be used to study the effects of the strategies.
- Describe how the project will collect and interpret evidence that the strategies were implemented as planned and goals achieved [project evaluation].

# Strategies projects...

- Can include pilot testing to determine if the new strategies lead to desired outcomes.
- Are encouraged to expand and extend our notions of learning environments/where learning can take place.
- Are encouraged to develop relevant partnerships with schools, colleges, informal learning institutions, businesses, government labs, and community-based organizations.

# Project Expansion and Dissemination (SPrEaD) Projects

- Study innovative strategies across a wider range of contexts and settings.
- SPrEaD projects document factors that may enhance, moderate, or constrain the effects of strategies designed to enhance student knowledge or disposition toward STEM-related education pathways or careers.

# SPrEaD proposals must...

- Describe the innovation and the contexts and conditions for broadening and scaling.
- Present evidence for the feasibility of impacts.
- Explain how the proposed project builds on previous implementations.
- Identify anticipated contributions to knowledge.
- Present a study design capable of generating robust evidence of the strategy's potential.
- Include plans to document fidelity of implementation.
- Involve a partner not previously involved.

# Additional Solicitation Specific Review Criteria

In addition to considering the two general Merit Review Criteria, reviewers will also be asked to consider the following three questions relating to broadening participation when reviewing Strategies and SPrEaD proposals:

- Does the proposal include explicit strategies for recruiting and selecting participants from identified groups currently underrepresented in STEM professions, careers, or education pathways?
- Does the proposal identify the specific needs of the underrepresented groups to be served, and does it include specific plans or strategies for addressing or accommodating the particular needs of participants of the identified underrepresented groups?
- Do the planned activities of the proposed project include explicit attention to strategies appropriate to participants' experiences for promoting awareness, interest, or readiness for STEM careers or STEM education pathways?



# Resources for Proposal Preparation

- ITEST Program Webpage:  
[http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=5467&org=DRL&from=home](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5467&org=DRL&from=home)
- ITEST Solicitation:  
[http://www.nsf.gov/publications/pub\\_summ.jsp?WT.z\\_pims\\_id=5467&ods\\_key=nsf15599](http://www.nsf.gov/publications/pub_summ.jsp?WT.z_pims_id=5467&ods_key=nsf15599)
- STEM Learning and Research Center (STELAR): <http://stelar.edc.org>
- Grant Proposal Guide:  
[http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=gpg](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=gpg)

# Common Guidelines for Education Research and Development

- Potential PIs and grant writers are encouraged to use the information in the *Common Guidelines for Educational Research and Development* and the set of NSF FAQs regarding them to help in the preparation of proposals
- The section on “Foundational, Early Stage or Exploratory, and Design and Development Studies” is most relevant to this solicitation.

# What are the *Common Guidelines*?

- NSF 13-126 - Joint effort between NSF and the Institute for Education Sciences at the U.S. Department of Education

<http://www.nsf.gov/pubs/2013/nsf13126/nsf13126.pdf>

- NSF 13-127 - Set of FAQs

<http://www.nsf.gov/pubs/2013/nsf13127/nsf13127.jsp>



**Questions?**



# Proposal preparation

# Project Summary Suggestions

- **First Sentence**
  - Type of Proposal – Strategies or SPrEaD
- **Second Sentence**
  - STEM or STEM-related areas of emphasis
  - Grade or age level(s) addressed
- **The strategy to be designed, implemented, and evaluated.**
- **Intellectual Merit and Broader Impacts**
  - Must include separate statements on each of these two NSB criteria.

Note: The Project Summary is used to group proposals, so should be “descriptive” rather than “persuasive”.

# Project Description Should Include...

- Project overview & succinct rationale
- Project goals and objectives
- Summary of effectiveness and impact of prior support
- Explanation of principles or theoretical framework that guided the project design, informed by the literature
- Detailed work plan with a timeline
- Research plan
- Anticipated results
- Independent evaluation process
- Dissemination plan
- Qualifications of key personnel who will be coordinating the project



# Things to Consider Relating to Goals and Objectives

- Why is this project important?
- How will the project attract students or prepare them for the STEM workforce?
- How will it advance knowledge?
- What are the anticipated outcomes and/or products of this project?
- How might these products or findings be useful on a broader scale?



# What Have You and Others Done? What is the context?

- Describe the theoretical and research basis on which the proposal is based.
- Discuss how the proposal is innovative and different from similar research and development projects.
- If you have been funded by NSF, provide evidence about the **effectiveness** and **impacts** of that work (Intellectual Merit & Broader Impacts).

# How Are You Going To Do It?

- State clear research questions or hypotheses that the project will test.
- Describe the plan for developing, adapting or implementing the proposed innovative strategy.
- Describe the research methods, including data analysis plans, sampling plan, and assessments.
- **Briefly** describe the work plan and timeline.

# Who Will do The Work?

- Briefly describe the expertise of the persons included on the proposal and why they are needed:
  - Education researchers and evaluators
  - Teachers
  - STEM-related content experts
- Upload two page bios for all senior personnel

# Independent Project Evaluation

A proposal must describe appropriate project-specific independent review and feedback processes.

- The review might include an external review panel or advisory board or a third-party evaluator.
- The review must independent and rigorous
- The proposal must
  - Describe the expertise of the external reviewer(s);
  - Explain how that expertise relates to the goals and objectives of the proposal;
  - specify how the PI will report and use results of the project's external, critical review process.
- There can be different groups providing formative and summative evaluation

## How Will Others Learn About The Project?

- Plan and describe specific strategies for **dissemination** of products or findings to researchers, policy makers, practitioners, and other relevant constituency groups.
- Requirement to provide project data as requested by the STEM Learning and Research (STELAR) Center.

# Supplementary Documents

- Letters of collaboration (*commitment*, not *support*) from project partners\*
- Data Management Plan
- Postdoctoral Mentoring Plan
- **NO OTHER DOCUMENTS**

\* be careful not to include attachments to the letters

# Budget

- **Should be consistent with level of work** – you do not have to request the maximum!
- **Two months salary:** No more than two months of salary for senior personnel with **academic** positions on all NSF grants *unless* justified.
- **Indirect cost rates:** Set by the institution and auditors and is non-negotiable.
- **Direct costs:** Not allowed for secretary or services provided through indirect costs.
- **No cost sharing**
- Limited equipment; no undergraduate tuition

# Common reasons for proposals to be rated non-competitive

## Importance

- Proposed problem not nationally important
- Weak, vague, or no connection to STEM content
- Relevant literatures not cited

## Methods

- Inadequate or inappropriate research design
- Vague or inappropriate data collection & analyses
- Too much data being collected
- Appropriate expertise not represented
- Cost at small scale prohibitive when scaled up



# Some Things POs Suggest You Avoid

- Ignoring requirements stated in the solicitation or the *Grant Proposal Guide*
- The “Trust Me” approach. Provide citations or evidence for critical assertions made.
- The “Oversell” of yourself or your project; take a neutral tone and let the evidence speak.
- General, vague, or rambling narrative without precision and details.
- Overemphasis of rationale for the project while neglecting methodology and details of what will actually be implemented.
- Note: URL’s are no longer allowed in Project Description

# Reasons for Return Without Review

- Violation of formatting rules of the *Grant Proposal Guide* (e.g. font, page length etc.)
- Failure to address specifically intellectual merit **and** broader impacts in the *Project Summary* and *Project Description*
- Unauthorized documents/data in the appendix or supplementary document section.
- No *Post-doc Mentoring Plan* if post docs are included on budget
- No *Data Management Plan*

# Where to Submit

## NSF's FastLane:

<https://www.fastlane.nsf.gov/index.jsp>

- Collaborative proposals must be submitted through FastLane.
- Fastlane will check for required sections of proposals.      **OR**

## Grants.gov:

<http://www.grants.gov> (submit here 2-3 days in advance of deadline since this site takes may take 1-2 days to inform you of errors requiring resubmission, thus making your proposal late.)

# Review Criteria

All proposals are reviewed under two criteria: Intellectual Merit and Broader Impact.

- 1. What is the potential for the proposed activity to:
  - a. advance knowledge and understanding within its own field or across different fields (Intellectual Merit); and
  - b. benefit society or advance desired societal outcomes (Broader Impacts)?
- 2. To what extent do the proposed activities suggest and explore creative, original, or potentially transformative concepts?
- 3. Is the plan for carrying out the proposed activities well-reasoned, well-organized, and based on a sound rationale? Does the plan incorporate a mechanism to assess success?
- 4. How well qualified is the individual, team, or institution to conduct the proposed activities?
- 5. Are there adequate resources available to the PI (either at the home institution or through collaborations) to carry out the proposed activities.

## For Further Information

- Call **(703) 292-8628**
- Email: **[DRLITEST@nsf.gov](mailto:DRLITEST@nsf.gov)**
- Contact an ITEST Program Director

Note: It is often advisable to discuss your proposed project with a program officer prior to submission. You may request a phone call. Sometimes it is helpful to submit a brief summary of your project prior to a call.