

Research Development & Grant Writing News

Volume 8, Issue 10: June 15, 2018

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Humanities and STEMM Integration

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By Mike Cronan, co-publisher

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This 280-page report ([The Integration of the Humanities and Arts with Sciences, Engineering, and Medicine in Higher Education: Branches from the Same Tree](#)) from the National Academy Press (2018) is available as a **free pdf download**. It will take a dedicated reader to go through this report in its entirety. Close readers will most likely have an institutional motivation related to the integration of the humanities and arts with sciences, engineering, and medicine in the curriculum. The Committee that generated this report was charged with *“examining the evidence behind the assertion that educational programs that mutually integrate learning experiences in the humanities and arts with science, technology, engineering, math, and medicine (STEMM) lead to improved educational and career outcomes for undergraduate and graduate students.”*

The Committee found no evidence to support this assertion. The Committee *“found that large, controlled, randomized testing of the hypothesis that integrated education would lead to educational and employment benefits are rare and likely to remain so.”* Nonetheless, the Committee *“found abundant narrative and anecdotal evidence, some evidence from research studies, and, very importantly, a broad, national groundswell of interest in developing approaches to integrated education.”* While *“causal evidence on the impact of integration on students is limited,”* the committee’s *“consensus opinion was that further effort be expeditiously exerted to develop and disseminate a variety of approaches to integrated education and that further research on the impact of such programs and courses on students be supported and conducted.”*

So, in terms of the bottom line, **what is the practical value of this report to research offices that work with faculty on planning, developing and writing proposals?** There are **several substantive reasons** why a perusal of this report has value. All of these reasons are centered on the nature of university-based research and educational proposals, many of which are hybrid proposals that include elements related to the development of the twenty-first century scientific and technical workforce and the various curriculums that enable students to be flexible, life-long learners prepared to work in diverse and innovative teams.

For example, the report itself thoughtfully examines the current lexicon used by federal research agencies, particularly NSF whose long-time mantra is the *“integration of research and education”* in funding solicitations. It contains descriptions of and discusses such core topics as disciplinary integration, the disciplinary context, the disciplines defined, multidisciplinary, interdisciplinary, and transdisciplinary integration, integration in the curriculum, integrative learning, and more.

Moreover, in the past, a discussion of the integration of humanities and STEM has been fairly much a one-way street, meaning, in effect, the inclusion of humanities courses in the academic programs of STEM majors **but not so much the inclusion of STEM courses into the academic programs of undergraduate humanities majors.** As the Committee noted in this report, *“The evidence base for the impact on students of courses and programs that integrate STEM knowledge and pedagogy into the arts and humanities is extremely limited, particularly in*

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the peer-reviewed literature. This is unfortunate, as the committee heard passionate testimony from faculty, students, and scholars to the benefits of such integration, both to students and to the arts and humanities disciplines.”

The Committee noted in the report that “Despite the limited evidence base, we found some evidence that integration of STEM content, pedagogies, and scholarly approaches into the humanities and arts serves to:

- Improve scientific and technological literacy among students majoring in the arts and humanities,
- Offer new tools and approaches for humanistic and artistic scholarship and practice, and
- Drive artistic and humanistic questioning, scholarship, and practice that explore the influence of science and technology on the human condition.”

The last bullet above (“*influence of science and technology on the human condition*”) is really a re-phrasing of what is meant by “**societal impacts**,” and “**societal benefits**,” particularly as those terms are used by NSF. For example, the currently open [Planning Grants for Engineering Research Centers \(ERC\)](#) is infused with a discussion of societal issues, as noted by NSF in the April 16 webinar on this program, “NSF is interested in using ERCs to develop engineered systems, which, if successful, will have a **high societal impact**.” As NSF notes, “Societal Impact represents opportunities and challenges that may be addressed through advances in engineering research and innovation for the benefit of society at large.”

This all melds, for example, with NSF’s more recent focus and attempt to define convergence research and societal impacts in both agency solicitations and publications, noting that “*Convergence is an approach to problem solving that cuts across disciplinary boundaries. It deeply integrates knowledge, tools, and ways of thinking from life/health sciences, physical, mathematical, and computational sciences, engineering disciplines, and beyond to form a comprehensive synthetic framework for tackling scientific and **societal challenges that exist at the interfaces of multiple fields**.*”

So what to make of this report, as well as its relational relevance to research offices assisting with the writing of proposals to federal research agencies, particularly NSF? First, a full-scale adoption of this report by any one institution would be an enormous and unwieldy challenge unlikely to be undertaken by any one institution. However, this report has **value as an excellent reference document for anyone working on proposals related to undergraduate education and research**, given that it is **comprised of numerous topics of discussion related to the overall theme of the report’s title**.. This is particularly true for undergraduate academic programs that prepare students in all disciplinary majors to better understand societal impacts by instilling in them a more robust and nuanced **understanding of the science underlying both societal benefits and impacts**. In short, this report is a good read and a valuable one for anyone engaged in proposal development.

It's a Good Time to Submit an NSF EAGER Proposal

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By Lucy Deckard, co-publisher

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If you're planning to apply to NSF for funding to support a high risk/high reward research project, but the project is still in the exploratory stage and you feel you need to gather more preliminary data or conduct a pilot project in order to develop a strong proposal, you may feel frustrated by the chicken-and-egg nature of this situation. You need preliminary data to get funding, and you need funding to get preliminary data! The NSF Early Grants-concept Grants for Exploratory Research ([EAGER](#)) funding mechanism was developed for just this situation.

If you happen to be in this situation, now is a good time to start talking to your Program Officer about the possibility of applying for an EAGER for two reasons: 1) As we approach the end of the federal fiscal year, EAGERS are one way (along with supplements to funded projects) that Program Officers can spend any funds left in their budget; and 2) In the Omnibus spending bill that Congress passed in March, more money was allocated to NSF than was originally expected, which means that some programs may have more funds than usual to spend before the end of the fiscal year.

What's an EAGER?

EAGER grants are internally reviewed, meaning that they are reviewed by NSF staff, and a panel of external peer reviewers is not assembled. A major reason for this is that peer reviewers tend to be conservative, hesitating to recommend high-risk projects that have a relatively high likelihood of failing. In the past, this has made it difficult for potentially transformative, but high-risk, projects to make it through the peer review process. Since part of NSF's mission is to fund potentially transformative projects, NSF decided to establish the EAGER mechanism to deal with this issue. The idea is not to entirely circumvent the peer review process; instead, EAGER funds are meant to help fund preliminary work to help PIs develop the evidence needed to convince reviewers of a future standard proposal that their idea is not too risky.

Another consequence of internal review is that decisions can be made much more quickly since assembling a peer review panel is not required. This becomes especially important as the fiscal year draws to a close and any funds in a program's budget not committed by the end of September will be lost.

EAGER grants can be up to \$300K for up to two years, but most EAGER grants are substantially smaller than that maximum. Usually, your Program Officer will give you an idea of how much you can ask for based on the funds available. Importantly, ***you must be invited to submit by your Program Officer (PO)***. An advantage of this process is that if you've made it through that gate and have been given the go-ahead by your PO, you're much more likely to be funded. As a result, funding rates for EAGER proposals are much higher than those for regular proposals.

Approaching your Program Officer

As with any time you need to contact your PO, it's usually a good idea to contact her via

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email with a brief summary of what you have in mind. Give enough specifics about your project and why you think it's appropriate for an EAGER so that the PO will at least have a general idea of what you're planning to propose. Then ask if you can talk to her on the phone about your project. She may respond with a time to schedule a phone discussion, or she may request a "white paper" – typically a couple of pages with more details. Remember that you will need to talk not just about the work that the EAGER grant will support, but also about how that work will position you to develop a strong proposal for a larger project with expected results that are exciting and potentially transformative. For example, if you need to generate preliminary data as evidence that a new method will work, how do you envision you'll continue the development of that method in a future funded project, and what will come out of it?

If your PO likes your idea, she will encourage you to apply for an EAGER. As mentioned above, she it's will likely that she'll give you some guidance on the size of the grant you should request, which will help you determine the scope of your EAGER project.

Writing an NSF EAGER Proposal

Guidance for writing an EAGER proposal is provided in the NSF Proposal & Award Policies & Procedures Guide ([PAPPG](#)). Instructions state that they expect the Project Description to be brief: no more than 8 pages. (In previous years, the limit was 5 pages.) You must explain why the project's appropriate for EAGER (i.e., why it's not likely to be successful as a regular proposal, and why the research is potentially transformative). As with any proposal, you will need to describe specifically what you plan to do if funded. In addition, you'll need to place the proposed project in the context of how it will position you for further exciting work that can be funded through the usual NSF mechanisms.

The double advantage of the EAGER is, not only will you receive funding to do your research, but it will also position you to be more competitive for future funding based on the results you get from your EAGER-funded project.

Characteristics of an Effective Proposal Team Member

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Individual members on a successful proposal development team typically share some common characteristics. In the aggregate, these qualities make them highly effective in functioning as an integrated and organized team and thereby able to avoid common proposal pitfalls. Fortunately, there is no secret sauce when it comes to defining an effective proposal team member and the best practices that will guide that person's involvement in a team effort. In fact, anyone who has had the unfortunate experience of working on a proposal with ineffective participants can describe the qualities of an effective team member merely by observing some of the behaviors of the ineffective participant in a struggling joint effort.

Obviously, the PI plays a key leadership role on a team effort and plays a determinant role in team composition. But that does not belie the need for an effective proposal development team comprised of individual team members that bring specific value-added benefits to the effort. Even if the PI is the research equivalent of LeBron James, success will still require a strong supporting team as evidenced by the recent championship win by the Golden State Warriors over the Cleveland Cavaliers. In the end, proposals that require a team require a highly effective team to be successful, and team effectiveness depends upon the capacity of each individual team member to understand the best practices of teaming.

So what are some of the best practices of team proposals that individual team members can follow to contribute to team success? The first requirement is that every team member on a proposal development team **must bring specific value-added benefits to the effort**. Those benefits may be in the form of the research expertise co-PIs and senior research personnel bring to the project, or a social scientist's ability to address societal impacts of the proposed research, or a STEM education specialist's ability to address Broader Impacts, or an outside evaluator's skill in assessing project outcomes, or, as is often the case, proposal support assistance from one or more university or college-level research offices. Regardless, each member of a proposal development team must **bring some expertise to the project that will enhance its chance of being recommended for funding**.

At the top of the hierarchy of most important characteristics of an effective team member is the necessity that each member read and reread the funding solicitation and relevant reference documents. Uninformed or selectively informed team members will often derail the timeline of proposal development by taking up time at team meetings with suggestions for project activities that fall outside the scope of the funding solicitation, or are of only marginal interest to the funding agency. Moreover, if team members who will be expected to make narrative contributions fail to thoroughly read the funding solicitation, they will further encumber the process of producing the multiple narrative drafts necessary to writing a winning proposal. A cursory reading of the solicitation will eventually require extensive editing and rewriting in order to bring narrative drafts into alignment with the goals and objectives of the proposed effort.

In addition to each team member accepting the responsibility to clearly understand the funding guidelines, each must also become well informed on the research contributions and

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role of every other team member. The road to successful funding on team proposals is essentially the ***road from silos to synergy in the research narrative***. A team member who is expected to make a narrative contribution to the project but who is familiar only with that portion of the guidelines specific to their own research and, further, who is only marginally familiar with the research contributions of other team members, will encumber the project. The draft narrative sections written by that team member will be siloed rather than integrated into the project's overall goals and objectives. This situation, in turn, often requires another team member or the PI to rewrite and edit a siloed text contribution to integrate it seamlessly into the project description.

As agencies, particularly NSF, move to convergence research for societal benefits, integrating disciplines traditionally siloed becomes increasingly critical to funding success. However, if individual team members remain largely siloed during proposal development, and if they fail to understand the role of research contributions from team members from other disciplines, then the entire team suffers and the proposal is doomed to fail. For example, simply to include a social and behavioral scientist on a technical proposal for the purpose of meeting the funding solicitation objectives is not sufficient. Each team member must also understand the disciplinary role each other member will play in the overall integration of the project.

Moreover, while many team members' value to the group will be based upon their narrative contributions to the project description, others will contribute by reviewing and commenting on the multiple draft narratives produced by those assigned writing tasks. Successful proposals go through multiple draft iterations, giving and each team member an opportunity to play a valuable role in that process.

Of course, another core attribute of a successful team member is ***one who does what they promise to do when they promise to do it***—never coming in a “day late and a dollar short.” Successful proposal production requires a team schedule and task assignment table, or similar organizational document, spelling out the major proposal production milestones, most importantly the time and due date for all narrative contributions as well as all edit and comment contributions. Any team member failing to meet the production schedule delays the production of the next narrative draft, since each draft needs to incorporate all new contributions, edits, and comments into each successive draft.

Finally, strong communication is a very important aspect of the effective team member. Team communications is key to success, and it is a fundamental aspect of “playing well in the team sandbox.”

Funding Agencies Are Not Monolithic

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By Mike Cronan, co-publisher

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When seeking advice on the mission, culture, and funding criteria of a federal research agency, keep in mind that an agency will often contain differences by scientific discipline and mission priorities within and among various internal directorates, centers, institutes, divisions, offices, programs, etc. In fact, it is helpful to think of many federal funding agencies as being organized much like a university, with major mission, disciplinary, and cultural variations across colleges, departments, centers, and institutes.

For example, a faculty member who has served as a recent rotator (visiting program officer) at NSF in Chemical, Bioengineering, Environmental, and Transport Systems (CBET) may be able to offer a general overview of the agency appropriate for a grant-writing workshop, but may not be able to offer background information required to write a successful proposal to a specific program, such as *Research on Learning in Formal and Informal Settings* (DLR) in Education and Human Resources (EHR), or *Cyber-Physical Systems* (CPS) in CISE. For specific information, seek advice from someone who has received funding specific to the DLR program area or by EHR, or who has been funded for CPS or a related program in CISE, either at your home institution, or at another institution, or by identifying the PI of a funded DLR or CPS project located by reading abstracts of recently funded projects.

The point here is that seeking advice from others on the mission, culture, and funding priorities of a federal research agency when writing a proposal is an excellent tactic that can make a significant contribution to the competitiveness of a proposal. However, it **must be tempered by evaluating the source of the information in terms of program-specific expertise and insight**. For example, when seeking advice from a former NSF program rotator in your disciplinary area of interest, you will need to know whether this information was gained within the last few years or a decade or more ago in order to better evaluate it specific to your particular case.

Federal agencies, particularly mission agencies, are continuously changing their funding priorities and program areas. In the case of NSF, the agency funds programs as models for adoption and adaption for a number of years or even a decade, but then sunsets them and goes on to new areas and new program models of interest. For instance, note that the new NSF ERC is a **fourth generation evolution of that program**; therefore, a person who served as a principal investigator on a third generation ERC, or earlier, may struggle with offering advice on convergence research team development and societal benefits and how specifically the new fourth generation ERCs differ from third generation ERCs to someone writing a current [ERC planning grant](#).

Of course, research offices at the university and college level are typically among those on campus with the widest overall knowledge of federal funding agencies coupled with in-depth expertise specific to many agencies and program areas within agencies, particularly long-standing programs. However, even those with an extensive research office knowledge base are challenged to keep pace with mission and program change across all federal agencies. Those

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faculty seeking background information, therefore, should prepare themselves to compete by doing some digging themselves either by finding an informed source of information specific to the program area of interest, or by doing a deep dive into the program of interest on the agency website. Faculty should follow reference and resource links included in the funding solicitation, talk to program officers, read abstracts of recently funded projects, identify and talk to currently or recently funded PIs in the program area of interest, ask colleagues for leads identifying those likely to be informed on the specific program area, etc.

The bottom line here is that faculty should **not assume** that someone informed and successful in one directorate, division, or program at a federal agency will be equally knowledgeable across all directorates, divisions, and programs at that agency. Agency knowledge typically becomes more generalized as the information source offers advice increasingly distant from the specific program of interest. This is not to imply that very informed general and generic information about an agency is not of enormous value to someone writing a proposal to that particular agency, or, in many cases, to other agencies as well.

However, it does imply that generic knowledge must be informed by the very specific information that comes from an in-depth and nuanced understanding at the program level. Consequently, when learning about an agency for the purpose of writing a more competitive and hence successful proposal, the applicant may **need multiple sources of information** that can be combined to serve their particular purposes. Moreover, when seeking information, recall that you may have sources of advice equally experienced and equally successful at a particular agency or directorate or division or program but who have formed differing opinions based on their experience. It will be your task to weigh conflicting advice.

For example, applicants can rely upon generalized and generic knowledge when completing the **first narrative paragraph of any proposal** to any agency in any disciplinary program area to answer the iconic generic questions: what you will do, why you will do it, how you will do it, your capacity to do it, your rationale, impact and significance of the proposed research on the agency mission and/or scientific field in the context of the current state of the art, and why and how your expected outcomes will transcend incremental advancement.

However, additional critical information is also needed to determine specifically how these core questions will become incorporated into the narrative guidelines across various agencies and programs. At ARPA-E, for example, these questions, or the equivalent in ARPA-E language, will need to be understood in the context of the four core factors that make a successful ARPA-E project: transformational technology, high risk, high reward, and pathway to impact. Moreover, at ARPA-E, the applicant must summarize these core generic questions answered in the technical narrative with graphics, which is actually good advice for any proposal.

Finally, applicants need to recognize that agencies can vary internally by program domains, priorities, and interpretations of culture and mission. Therefore, it's important to avoid assuming that any agency is monolithic; instead, evaluate advice by trying to determine whether and how it is relevant to your particular program area of interest. The experiences your colleagues or research offices have gained at research agencies that form the basis for their advice can vary widely; therefore, applicants should prepare themselves not only to seek advice but also to evaluate how that advice best applies to their particular circumstances.

Proposal Development Topics in Brief

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[ARPA-E Open 2018 Full Application Best Practices](#)

This 12-minute YouTube video by an ARPA-E program manager nicely distills the competitive factors that determine funding success at that agency, including how the research narrative addresses the approach, preliminary data, work plan, technical risk, schedule, and task descriptions. Moreover, it addresses the four core factors that make a successful ARPA-E project: transformational technology, high risk, high reward, and pathway to impact. This overview of how to become successfully funded at ARPA-E explains what characterizes a winning proposal at that agency. The specific factors include a technical narrative that: supports the claims made about the proposed project with data and results; summarizes the technical narrative with graphics; offers a clear and specific description of the technical problem that will be solved; gives sufficient detail to allow reviewers to access the value and impact of the project; contrasts the proposed project to the state of the art in the field; quantifies advantages to the proposed project; and, finally, quantifies the impact of the project.

[Grantmaking at ED: Answers to Your Questions About the Discretionary Grants Process](#)

If you plan to submit a [discretionary grant to ED](#), or assist those who do, this 62-page document is a must read in terms of giving you the key information needed to write a successful proposal to ED. It is a detailed description of how to locate funding at ED, how the agency is organized, developing and submitting an application, how your application is reviewed, and post-award project management expectations, among many other topics that will play a role in the success of your application.

For example, a key section of this document describes the review process used to determine which applications are funded based on a raw ranking score and other factors that determine the final creation of a formal list, called a “**funding slate**,” of the applications recommended for funding and the recommended funding level for each. Moreover, if you are interested in becoming a reviewer for ED, something highly recommended, contact the program office that administers the grant programs in your area of interest or visit the program office’s website on the Department’s website. You will need to complete an application or submit a resume or a curriculum vita providing information that the program staff can use to determine whether you have the necessary qualifications.

In summary, *Grantmaking at ED* provides a non-technical summary of ED's discretionary grant process and the laws and regulations that govern it. This document has been updated to include the new requirements from the Uniform Guidance, found at Title 2 of the Code of Federal Regulations, part 200 (i.e., 2 CFR Part 200). This publication is intended for individuals and organizations that are interested in applying to ED for discretionary grants and cooperative agreements, have received an award, or are interested in knowing more about ED's discretionary grant process. It describes how grant programs are created by Congress and administered by ED, and the process by which the public can apply for and receive discretionary grants. This document does not contain information about ED programs that give student

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financial assistance or funding through formula grant programs. Information about federal student aid is available at: <http://www2.ed.gov/fund/grants-college.html>. Information about all ED grants is available at: <http://www2.ed.gov/programs/find/title/index.html>. Additional information about the Uniform Guidance is available at: <http://www2.ed.gov/policy/fund/guid/uniform-guidance/index.html>. Readers may also refer to "Other Information" at the end of this publication to locate information on these types of assistance. We hope you find this publication helpful. We appreciate your interest in our grant programs and look forward to working with you to promote educational excellence and equity in the United States. *Grantmaking at ED*, September 2015 [PDF \(856K\)](#)

DoD Grant Awards Database

Note from Lucy Deckard, co-Publisher: *The link for the DoD Awards database is <https://dodgrantawards.dtic.mil>. However, there is something wrong with their certificate, and you will get a notice from your browser saying the site is not secure. Depending on which browser you use, look for an "advanced" link and then you'll find an override option. This isn't an unusual issue for DoD websites. After getting the website to load, click on "Advanced Search."*

Welcome to the Department of Defense (DoD) Grant Awards Website. This website was established in response to a statutory requirement contained in Section 8123 of the fiscal year 2015 DoD Appropriations Act (Division C of the Consolidated and Further Continuing Appropriations Act, Public Law 113-235). This website contains publicly-searchable descriptive abstracts of DoD grant awards from December 9, 2014 (the date of passage of the Act), along with other grant award information. Members of the public may conduct searches using a variety of fields and/or keywords, and view or download the results. For more information on the DoD grant award data available from this website, please see the frequently asked questions (FAQ) section under the Help menu.

DoD awarding offices add DoD grant awards to this website on a continuing basis per awarding office procedures and available resources. If you are looking for a recent grant award and it does not appear in your search, please try again at a later date. You may also contact the awarding office about a specific award if you are not able to find it here.

Simple Search

Search by the following fields: ***project title, award abstract, award number, DoD awarding office, and recipient organization name.***

Advanced Search

Search by these additional fields: ***award amount, fiscal year, funding agency, start/end dates, creation/modified dates, and POC name.***

New Report Recommends Academic Institutions Should Prepare Undergraduates for a Data-Driven Workplace

All U.S. undergraduate students should develop a basic understanding of data science to prepare them adequately for the workforce, says a new [report](#) from the National Academies of Sciences, Engineering, and Medicine. The report examines the importance and benefits of postsecondary data science education and recommends offering a range of educational pathways, attracting students with varied backgrounds to the discipline, and embedding ethics and privacy into the curriculum.

Research Development & Grant Writing News

Planning Grants for Engineering Research Centers (ERC)

UPDATE: [Webinar slides](#) and [Frequently Asked Questions \(FAQs\) for NSF 18-549, Planning Grants for Engineering Research Centers \(ERC\)](#) are now available.

Unrealistic Expectations for Wordsmithing

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Reprinted from June 2014

By [Mike Cronan](#), co-publisher

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It can be the case that poor writing disguises a good idea. It can also be the case that poor writing disguises a mundane idea, the latter being the notorious “double whammy” of grant writing. Over time, anyone with experience in the development, planning, and writing of the proposal narrative will encounter both of these situations. In the former case, when an editorial intervention can produce the research narrative analog of a biological metamorphosis and result in a competitive proposal, everyone celebrates. In the latter case, when it becomes clear that no amount of editorial intervention can transform a mundane idea into a competitive idea, the situation is more challenging. This is the dilemma of “putting lipstick on a pig,” wherein cosmetic changes cannot disguise the fact that, when all is said and done, the pig is still a pig.

Moreover, it is particularly challenging when the PI of a proposal believes all the deficiencies of the research narrative are correctable by “wordsmithing,” a very scary misconception indeed. In this context, “wordsmithing” is akin to the notion that a poorly expressed idea can be reinvigorated by the addition of “some boilerplate.” While wordsmithing can help reveal a good idea disguised or out of focus, much like corrective lenses allow us to see a horizon we didn’t know was there, *it cannot reveal what is not there, nor can it magically transform a mundane idea into a fundable idea*. Too often the person asked to do the narrative wordsmithing confronts the Gertrude Stein dilemma in attempting an editorial intervention—discovering that, in terms of the narrative, “*there is no there there.*” Unfortunately, no known editorial legerdemain can save a mundane idea from ending up in the declined proposal graveyard, a very populated place indeed given the proposal success rates at federal research agencies.

So what to do? *Well, the easy path out of this dilemma is to perform the so-called perfunctory “mortician’s edit” on the proposal and let it go at that.* However, the more arduous solution, and ultimately the most satisfying one, is to go back to the fundamentals and build up from there. Many who seek assistance on proposals in the form of editorial interventions, re-writing, strategic planning, and the like have had little or no training whatsoever in the basics of grant writing, particularly in the process of developing ideas and *mapping them to the research expectations described in the funding solicitation.*

Clearly, it is unrealistic for a PI to seek “wordsmithing” assistance on a proposal that is poorly written and lacks a core competitive research idea in the mistaken belief that an editorial intervention is all that stands between the proposal and funding success. But unrealistic expectations often reflect inexperience. Unfortunately, when a poorly written proposal is declined for funding, PIs often come to believe that “*the reviewers failed to understand the significance of my research and the importance of funding it.*” In these instances, PIs must ask not whether the reviewers have failed to grasp the significance of the proposed research but whether the PI assumes a significance that is not there, *or has so poorly*

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presented the research that its significance has been disguised by a poorly organized, poorly written, and poorly argued narrative.

When writing proposals, it's best to adopt the working philosophy that ***reviewers are never at fault*** for failing to recognize the importance of your research to advancing the field. As Shakespeare's Cassius reminded Brutus, "The fault, dear Brutus, is not in our stars, But in ourselves." Had Brutus received a set of poor reviews, Cassius's counsel offered him the best way forward to a resubmittal, just as Hamlet's eternal soliloquy on grant writing best sums up the dilemma: "*To resubmit or not to resubmit. That is the question.*" The bottom line is this: ***blaming reviewers for your funding fate is a waste of time and energy.*** These are resources best spent on making the important revisions needed.

The other caution to keep in mind is that ***wordsmithing is never a substitute for a good idea.*** For funding success, they must both be present, with the former always grounded on the latter. ***A poorly written proposal is often the tell tale sign of a poorly developed idea.*** Some of the common failures of a research narrative—***too broad, too vague, lacking specifics, lacking details, lacking clarity, lacking context,*** etc.—have their origins in a research idea not yet fully mature or fully defined in the context of the state of the field. Wordsmithing and editorial interventions can only ***sharpen the focus and clarity of otherwise well conceptualized research objectives that meet the intent of the funding solicitation, but they can never be a surrogate for good ideas.***

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Research Grant Writing Web Resources

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[NSF ERC Planning Grant Webinar](#)

UPDATE: [Webinar slides](#) and [Frequently Asked Questions \(FAQs\) for NSF 18-549, Planning Grants for Engineering Research Centers \(ERC\)](#) are now available. In conjunction with the release of the [Planning Grants for Engineering Research Centers \(ERC\) solicitation \(NSF 18-549\)](#), and to keep interested parties informed about new developments in the ERC program, program directors in the NSF Division of Engineering Education and Centers conducted a live Q&A webinar focused on topics specific to this solicitation.

[ED Discretionary Grants Information](#)

Eligibility and Forecasts

- [Find Grant Programs by Eligibility](#): who can apply for what
- [ED grants forecast](#): competitions opening soon

Application Information

- [Federal Register Notices](#): competitions and other announcements
- [Apply](#): Deadlines, amounts, applications, more
- [Forms](#)

Online Applications

- [Grants.gov](#): Application packages for ED programs
- [G5](#): Application packages on ED's online grants system
- [EDPubs](#): list of downloadable application packages

Other grant information

- [IES funding](#): funding opportunities from ED's Institute for Education Sciences
- [Grants.gov](#): federal government grant competitions
- [All formula grants](#)
- [A-Z list of all programs](#)
- [Grantmaking at ED](#): a summary of ED's discretionary grant process
- [Grants Training Courses](#)
- [More information about ED programs](#)

[Steps to Applying for IES Grants](#)

1. Identify a current funding opportunity that matches your research interests and identify the relevant [Letter of Intent and application deadlines](#).
2. View a [funding opportunities webinar](#) to learn more about the application process and choosing an appropriate funding opportunity.
3. Download the appropriate [Request for Applications](#) and [application package](#) (Search for CFDA 84.305 or CFDA 84.324).
4. Submit your [Letter of Intent](#) (optional but strongly encouraged).
5. Register (or update) your organization on [Grants.gov](#).
6. Submit your application to [Grants.gov](#) before the application [deadline](#).

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The Standards and Review Office (SRO) is responsible for the scientific peer review process for the grant applications.

- [SRO Website](#)
- [Peer Review Process](#)
- [List of Peer Reviewers](#)
- For more information regarding funding opportunities webinars, [browse here](#).
- [IES Research and Research Training Grant Programs: Important Dates and Deadlines](#)

[Request for Information \(RFI\): Strategies for Enhancing Postdoctoral Career Transitions to Promote Faculty Diversity](#)

NIGMS seeks input from key extramural community stakeholders, including graduate students, postdoctoral scientists, biomedical faculty, scientific societies and advocacy organizations, and academic institutions, as well from interested members of the public, on strategies to enhance postdoctoral career transitions to promote faculty diversity, specifically in research-intensive institutions. Topics that could be addressed include, but are not limited to, the following:

- The barriers scientists from underrepresented groups face as they progress from postdoctoral training into faculty positions at research-intensive institutions, and potential strategies to overcome these barriers.
- The qualities and perspectives that scientists from underrepresented groups bring to the research enterprise, and how these can be drawn upon to encourage and promote career transitions into the professoriate at research-intensive institutions.
- Approaches that key stakeholders (e.g., faculty advisors, institutions, scientific societies, etc.) can employ to promote the successful career transitions of postdoctoral scientists from underrepresented groups into the professoriate at research-intensive institutions, and how these can be coordinated and sustained to maximize impact.
- Current strategies that have been successful in promoting the transition of postdoctoral scientists from underrepresented groups into independent, tenure-track faculty positions.
- Any other comments or recommendations for NIGMS to consider with respect to programmatic efforts to enhance career transitions of postdoctoral scientists from diverse groups into the professoriate at research-intensive institutions.

How to Submit a Response

Responses to this RFI will be accepted through July 20, 2018. All comments will be anonymous and must be submitted via a web form at [https://www.research.net/r/Faculty and Diversity](https://www.research.net/r/Faculty_and_Diversity).

Responses to this RFI are voluntary. The Government is under no obligation to acknowledge receipt of the information provided and respondents will not receive individualized feedback. This RFI is for planning purposes only and should not be construed as a solicitation or as an obligation on the part of the United States Government. NIGMS will use the information submitted in response to this RFI at its discretion. NIGMS does not intend to make any type of award based on responses to this RFI or to pay for either the preparation of information submitted or the United States Government's use of such information.

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The information submitted will be analyzed and may be shared internally, appear in reports or be reflected in future solicitations, as appropriate and at the Government's discretion. Proprietary, classified, confidential, or sensitive information should not be included in your response.

Educational Grant Writing Web Resources

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[The 2018 STEM For All Video Showcase](#) features 214 three-minute videos that showcase innovative work to improve science, technology, engineering, math, and computer science education.

[NCTQ Recommendations for Improving Teacher Quality Have Little Basis in Research](#)

[New Report Release on The Summer After Kindergarten: Children's Experiences by Socioeconomic Characteristics](#)

[Mathematical Modeling: Challenging the Figured Worlds of Elementary Mathematics](#)

This article is a report on a teacher study group that focused on three elementary teachers' perceptions of mathematical modeling in contrast to typical mathematics instruction. Through the theoretical lens of figured worlds, I discuss how mathematics instruction was conceptualized across the classrooms in terms of artifacts, discourse, and identity. I then highlight, through four themes, how mathematical modeling challenged the ways in which both the teachers and students understood what it means to know and do mathematics. Findings suggest that the practice of mathematical modeling allowed for access, empowerment, and real world connections that were typically not present in classroom instruction. In addition, it challenged student positioning in the classroom in terms of who was framed as capable of doing mathematics.

[Mathematical Modeling with Middle School Students: The Robot Art Model-Eliciting Activity](#)

Internationally mathematical modeling is garnering more attention for the benefits associated with it. Mathematical modeling can develop students' communication skills and the ability to demonstrate understanding through different representations. With the increased attention on mathematical modeling, there is a need for more curricula to be developed, implemented, and assessed. This study details the mathematical understandings that a diverse class of urban middle school students demonstrated on a mathematical modeling activity focused on geometry and measurement. At times students had difficulties in communicating clearly but based on the structure of the activity students were able to self-assess the quality of their communication and work towards improvement. The groups in the class were able to develop methods for how to program a robot to recreate a picture, though improvements could be made to the design of the activity. Teachers can use MEAs and mathematical modeling as formative assessment to build on students' understandings and further develop ideas that the teacher has in mind to pursue. Such assessment provides a rich basis for identifying evolving mathematical understandings that can be further developed.

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[Statement by the Presidents of the National Academy of Sciences, National Academy of Engineering, and National Academy of Medicine on Preventing Sexual Harassment](#)

Sexual harassment in science, engineering, and medicine diminishes the integrity of the U.S. research enterprise. The National Academies of Sciences, Engineering, and Medicine take this issue very seriously. We have long been committed to providing a safe workplace free of harassment and intimidation, and our sexual harassment policy applies to anyone who is involved in the work of the Academies, including staff, volunteers, and members of our three Academies. We want to be sure that we are doing everything possible to prevent sexual harassment, to instill a culture of inclusion and respect, and to reinforce that harassment is not tolerated. The National Academies' Committee on Women in Science, Engineering, and Medicine has a long history of advocating for increased participation and well-being of women in these disciplines, and in 2016, the committee initiated a study on sexual harassment in academia. We are pleased that the resulting report, *Sexual Harassment of Women: Climate, Culture, and Consequences in Academic Sciences, Engineering, and Medicine*, will be released next month. The report's evidence-based recommendations are intended to be a guide for academic institutions and professional societies, and will be used to inform a re-examination of our policies and procedures as well.

[No race or gender bias in a randomized experiment of NIH R01 grant reviews](#)

Many granting agencies allow reviewers to know the identity of a proposal's Principal Investigator (PI), which opens the possibility that reviewers discriminate on the basis of PI race and gender. We investigated this experimentally with 48 NIH R01 grant proposals, representing a broad spectrum of NIH-funded science. We modified PI names to create separate White male, White female, Black male, and Black female versions of each proposal, and 412 scientists each reviewed three proposals. We found no evidence that White male PIs received evaluations that were any better than those of PIs from the other social categories, and this conclusion was robust to a wide array of model specifications. Supplemental analyses suggest that any bias that is present is likely below the threshold of pragmatic importance. Pragmatically important bias may be present in other aspects of the granting process, but our evidence suggests that it is not present in R01 reviews.

RFI-AID-18-060418 Determining Functional Field Units in Complex Agricultural Systems

Agency for International Development

<https://www.grants.gov/web/grants/search-grants.html?keywords=RFI-AID-18-060418>

This is a Request for Information only. USAID has not made a Selection of Instrument determination at this time. This notice is being posted to both FBO and grants.gov. This notice is an RFI and in no way guarantees USAID will issue a solicitation. USAID's Bureau for Food Security is issuing this Request for Information (RFI) regarding the identification and determination of field units in complex agricultural systems. The purpose of this notice is to

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receive information to inform the Agency of the extent to which recent analytical developments in image processing and computer vision might enable the accurate detection of agricultural field units in areas of interest to USAID's Food Security programs. The RFI seeks this information from organizations, private companies, institutions of higher education, and researchers that have the capacity to carry out this work, or which would be interested in partnering with USAID on this effort to create a global public good.

Report Urges Improvements to Graduate Education in STEM Fields; Incentive System in Academia Must Shift to Strengthen Emphasis on Teaching and Mentoring

A new [report](#) from the National Academies of Sciences, Engineering, and Medicine recommends substantial changes to U.S. graduate education in science, technology, engineering, and mathematics (STEM) in order to meet the evolving needs of students, the scientific enterprise, and the nation. The report describes an ideal graduate education and identifies the core competencies that Ph.D. and master's students should acquire.

Achieving this vision will require the graduate education system, whose incentive system is now heavily weighted toward rewarding faculty primarily for research output, to increase the value it places on best practices of teaching and mentorship, the report says. To promote this kind of culture change, federal and state funding agencies should align their grant award criteria to help ensure that students experience the type of graduate education that is recommended in the report. Once that happens, it will be much more likely that higher education institutions will include teaching and mentoring as important considerations in promotion and tenure decisions, said the committee that wrote the report.

The U.S. graduate education system has served the nation extremely well, the report notes. But recent changes -- dramatic innovations in research methods and technologies, changes in the nature and availability of work, changes in demographics, and expansion in the scope of jobs needing STEM expertise -- raise questions about how well the current system is meeting 21st century needs. Recent surveys and studies suggest that many graduate programs do not adequately prepare students to translate their knowledge into impact in a range of careers.

The report identifies nearly a dozen characteristics of ideal graduate education. For example, students would be able to select their graduate program aided by fully transparent data about viable career pathways and successes of previous students in the department and institution. They would acquire broad technical literacy coupled with deep specialization in an area of interest. Students would be given multiple opportunities to communicate the results of their work and to consider ethical and societal issues associated with their work. They would also be encouraged to create their own project-based learning opportunities -- ideally as a member of a team -- as a way to develop transferable professional skills. Experiences where students "learn by doing," rather than simply through lectures and coursework, would be the norm.

NIH Notice of Intent to Publish a Funding Opportunity Announcements from the National Institute of General Medical Sciences (NIGMS) at NIH for: Initiative for Maximizing Student Development (IMSD) (T32) Program ([NOT-GM-18-028](#)); Graduate Research Initiative for Student Enhancement (G-RISE) (T32) Program ([NOT-GM-18-029](#)); Undergraduate Research

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Initiative for Student Enhancement (U-RISE) (T34) Program ([NOT-GM-18-030](#)); Maximizing Access to Research Careers (MARC) (T34) Program ([NOT-GM-18-031](#))

ED/IES 2018 Unsolicited Grant Opportunities

The Institute of Education Sciences (IES) announces that it will consider unsolicited applications for research, evaluation, and statistics projects that would make significant contributions to the mission of the organization. Under this announcement, IES can consider applications for projects that are **not eligible under the Institute's FY2018 grant competitions**. The Institute's FY2018 grant competitions are those for the fiscal year (FY 2018), both open and closed, which are described at <https://ies.ed.gov/funding/>. **The applicant must demonstrate that the project was not eligible under one of the Institute's FY2018 grant competitions**. The Institute's National Center for Education Research did not hold the Research Training Programs in the Education Sciences competition (CFDA Number: 84.305B) or the Statistical and Research Methodology in Education competition (CFDA Number: 84.305D) in FY 2018, and the Institute **will not consider applications under this unsolicited announcement that in prior years would have been eligible under those two competitions**. To view the FY 2018 Unsolicited Grant Opportunities announcement, [click here](#).

Dear Colleague Letter: Discoveries to Revolutionize Engineering and Architectural Materials for Buildings (DREAM-B)

The vast U.S. building stock has been constructed primarily of conventional materials, such as concrete, masonry, steel, and wood. New waves in building design approaches, such as performance/resilient-based design, as well as rapid evolutions in robotics, additive manufacturing, and computation, create stunning new opportunities to revolutionize engineering and architectural materials for high performance buildings.

With this Dear Colleague Letter (DCL), Discoveries to Revolutionize Engineering and Architectural Materials for Buildings, the National Science Foundation (NSF) invites proposals to the Engineering for Civil Infrastructure (ECI) program for EARly-concept Grants for Exploratory Research (EAGER) for high risk/high reward fundamental research to investigate wholly new materials and radical changes in the design of conventional materials, through the adaptation and integration of advanced technologies, to enable high performance buildings (structural systems, foundation systems, and building envelopes). Building material designs should be guided by a "closed loop" iterative engineering design process to achieve an optimum balance of building cost, function, performance and constructability that might be attainable within the next few decades. Investigators are urged to begin by imagining materials that can enable buildings to be adaptable to various levels of service and extreme loadings and environmental stresses while balancing occupant health and comfort and other beneficial attributes (such as energy and cost). Investigators should seize opportunities that leverage convergence of knowledge across engineering, computational, and materials science disciplines, especially those outside traditional civil engineering.

EAGER proposals with budgets of up to \$300,000 will be considered; proposed budgets must be justified by the project scope. EAGER proposals must follow NSF's [Proposal & Award Policies & Procedures Guide \(PAPPG\)](#). Proposals should be submitted to the ECI program in the Civil, Mechanical and Manufacturing Innovation (CMMI) Division of the Engineering Directorate

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by December 3, 2018. Titles for proposals responding to this DCL should be prefixed with "EAGER: DREAM-B." Proposals must clearly indicate the reason why the proposed work is appropriate for EAGER support. External reviews will be obtained for proposals submitted to this DCL.

Interested PIs are required to contact one of the cognizant NSF Program Officers listed below before submission of the EAGER proposal. Often, a one-page abstract is helpful when contacting the Program Officer to establish the appropriateness for an EAGER proposal submission.

Dear Colleague Letter: Programmatic Changes to the Evolutionary Processes Cluster in the Division of Environmental Biology

The Evolutionary Processes Cluster has merged the two programs, Evolutionary Ecology and Evolutionary Genetics, into a single Evolutionary Processes (EP) Program. There is no change in the scope of topics that should be submitted to the Evolutionary Processes Program; any topic that would have been submitted to Evolutionary Ecology or Evolutionary Genetics should now be submitted to Evolutionary Processes. This includes proposals submitted in response to the Division of Environmental Biology core solicitation as well as proposals submitted in response to the Faculty Early Career Development (CAREER), Research Coordination Network, Long Term Research in Environmental Biology, and Opportunities for Promoting Understanding through Synthesis solicitations.

The change is due to the logistics associated with the move to a [no-deadline proposal submission](#), which allows a more fluid management of panel timing and composition. The no-deadline approach allows for a flexible grouping of proposals into panels with a more tailored set of panel reviewers, potentially including panels that will span one or more clusters.

More information about the Evolutionary Processes Program can be obtained through the EP web page and program description

(https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503664&org=DEB&from=home) If you have any questions, please contact one of the EP program officers listed on the EP web page.

Dear Colleague Letter: Scalable Cyberinfrastructure to Accelerate Data-Driven Science and Engineering Research

In 2016, NSF unveiled a set of "Big Ideas" - 10 bold, long-term research ideas that identify areas for future investment at the frontiers of science and engineering. Among them, the Harnessing the Data Revolution for 21st Century Science and Engineering (HDR) Big Idea aims to promote engagement of NSF's research community in the pursuit of fundamental research in data science and engineering; the development of a cohesive, federated, national-scale approach to research data cyberinfrastructure; and the development of a 21st century data-capable workforce.^[1]

In parallel, NSF continues to invest in major facilities and platforms that drive research at national and international scales to catalyze new multi-disciplinary collaborations and discoveries. These investments require a robust, performant, and secure data cyberinfrastructure to address critical needs for the management, integration, delivery and analysis of priority community data to catalyze fundamental discoveries and address complex scientific questions across multiple research domains.

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Through this Dear Colleague Letter (DCL), the Office of Advanced Cyberinfrastructure (OAC) encourages submission of proposals to the [Cyberinfrastructure for Emerging Science and Engineering Research \(CESER\) program](#) for scalable data-driven cyberinfrastructure (CI) exemplars that will accelerate discovery for one or more science and engineering research communities, capitalizing on and enhancing existing NSF priority investments. NSF is particularly interested in data CI exemplars that will significantly enhance the scientific utility of data produced by NSF-supported major multi-user research facilities (MMURF). Specific relevance to one or more NSF Big Ideas is highly encouraged.

Successful exemplars will demonstrate capabilities that:

- Address one or more major identified science and engineering research challenges, particularly in support of NSF Big Ideas;
- Capitalize upon existing NSF investments in data CI, NSF MMURF, and data research;
- Have the potential to rapidly expand or scale capacity and impact within 18 months; and
- Substantially augment scientific impacts within the period of the award.

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Agency Reports, Workshops & Research Roadmaps

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[The Science of Science Communication III: Inspiring Novel Collaborations and Building Capacity: Proceedings of a Colloquium](#)

Successful scientists must be effective communicators within their professions. Without those skills, they could not write papers and funding proposals, give talks and field questions, or teach classes and mentor students. However, communicating with audiences outside their profession - people who may not share scientists' interests, technical background, cultural assumptions, and modes of expression - presents different challenges and requires additional skills. Communication about science in political or social settings differs from discourse within a scientific discipline. Not only are scientists just one of many stakeholders vying for access to the public agenda, but the political debates surrounding science and its applications may sometimes confront scientists with unfamiliar and uncomfortable discussions involving religious values, partisan interests, and even the trustworthiness of science.

The Science of Science Communication III: Inspiring Novel Collaborations and Building Capacity summarizes the presentations and discussions from a Sackler Colloquium convened in November 2017. This event used Communicating Science Effectively as a framework for examining how one might apply its lessons to research and practice. It considered opportunities for creating and applying the science along with the barriers to doing so, such as the incentive systems in academic institutions and the perils of communicating science in polarized environments. Special attention was given to the organization and infrastructure necessary for building capacity in science communication.

[Leveraging Advances in Social Network Thinking for National Security: Proceedings of a Workshop](#)

Beginning in October 2017, the National Academies of Sciences, Engineering, and Medicine organized a set of workshops designed to gather information for the Decadal Survey of Social and Behavioral Sciences for Applications to National Security. The third workshop focused on advances in social network thinking, and this publication summarizes the presentations and discussions from this workshop.

[Emerging Trends and Methods in International Security: Proceedings of a Workshop](#)

Beginning in October 2017, the National Academies of Sciences, Engineering, and Medicine organized a set of workshops designed to gather information for the Decadal Survey of Social and Behavioral Sciences for Applications to National Security. The second workshop focused on emerging trends and methods in international security and this publication summarizes the presentations and discussions from this workshop.

[New Report on the Condition of Education in the United States](#)

The National Center for Education Statistics released *The Condition of Education 2018* today (May 23), a congressionally mandated report that summarizes important developments and trends in education using the latest available data. This year's report provides new analyses on

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a wide range of issues, including the cost of early childhood care arrangements and average student loan debt for graduate school completers. Findings from the new analyses include:

- Early childhood care expenses were higher in 2016 than in 2001. For example, families' average hourly out-of-pocket expenses for center-based care were 72 percent higher in 2016 (\$7.60) than in 2001 (\$4.42), in constant 2016–17 dollars. The analysis also finds that in 2016, some 57 percent of children under the age of 6 had parents who reported there were good choices for child care where they lived. Among children whose parents reported difficulty finding child care in 2016, some 32 percent cited cost as the primary reason.
- Overall, 18 percent of public school teachers in 2015–16 had entered teaching through an alternative route to certification program. The percentages were higher among those who taught career or technical education (37 percent), natural sciences (28 percent), foreign languages (26 percent), English as a second language (24 percent), math and computer science (22 percent), and special education (20 percent).
- Among graduate school completers who had student loans for undergraduate or graduate studies, average student loan balances increased between 1999–2000 and 2015–16 for all degree types (in constant 2016–17 dollars). For example, average student loan balances for students who completed research doctorate degrees, such as a Ph.D., doubled during this time period, from \$53,500 to \$108,400 (an increase of 103 percent). Average student loan balances increased by 90 percent for those who completed professional doctorate degrees, such as medical doctorates and law degrees (from \$98,200 to \$186,600).

The 2018 report also includes other key findings on topics ranging from prekindergarten through postsecondary education, as well as labor force outcomes and international comparisons. To browse the full report, please visit <https://nces.ed.gov/programs/coe/>

To download the full report as a PDF file, please visit:

<http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2018144>

The State of Resilience: A Leadership Forum and Community Workshop: Proceedings of a Workshop

Over the past decade, resilience has gained significant traction across the nation and innovative programs are showing exciting progress in building resilient communities. For communities to be prepared for future extreme weather and climate events, as well as the chronic daily stressors, the momentum of implementing and taking action to build community resilience should continue to be fostered and expanded.

Building on its many efforts dedicated to increasing and enhancing resilience, the Resilient America Roundtable hosted the State of Resilience Leadership Forum and Community Workshop on June 28 and 29, 2016. This activity brought together diverse decision makers, experts, practitioners, and community stakeholders, including representatives from academia, government, the private sector, foundations, and nonprofit organizations, to consider the results of years of investment, experimentation, and research in building resilience, take stock of these many initiatives and efforts, and share their experiences in building more resilient communities. This publication summarizes the presentations and discussions from the workshop.

New Funding Opportunities

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Content Order

New Funding Posted Since May 15 Newsletter
URL Links to New & Open Funding Solicitations
Solicitations Remaining Open from Prior Issues of the Newsletter
Open Solicitations and BAAs

[User Note: URL links are active on date of publication, but if a URL link breaks or changes a Google search on the key words will typically take you to a working link. Also, entering a grant title and/or solicitation number in the Grants.gov search box will work as well.]

New Funding Solicitations Posted Since May 15 Newsletter

[ED-GRANTS-060718-001, Office of Postsecondary Education \(OPE\): Gaining Early Awareness and Readiness for Undergraduate Programs \(GEAR UP\) State Grants CFDA Number 84.334S](#)

The GEAR UP program is a discretionary grant program that encourages eligible entities to provide support, and maintain a commitment to eligible low-income students, including students with disabilities, to assist the students in obtaining a secondary school diploma (or its recognized equivalent) and to prepare for and succeed in postsecondary education. Under the GEAR UP program, the Department awards grants to two types of entities: (1) States and (2) eligible partnerships. **Due July 13.**

[ED-GRANTS-060618-001 Office of Postsecondary Education \(OPE\): Undergraduate International Studies and Foreign Language \(UISFL\) Program CFDA Number 84.016A](#)

The UISFL program provides grants for planning, developing, and carrying out programs to strengthen and improve undergraduate instruction in international studies and foreign languages in the United States. **Due July 26.**

[WHS-AD-FOA-18 Minerva Research Initiative Department of Defense](#)

The Office of the Secretary of Defense (OSD) is interested in receiving proposals for the Minerva Research Initiative (<http://minerva.defense.gov>), a university-led defense social science program seeking fundamental understanding of the social and cultural forces shaping U.S. strategic interests globally. OSD is particularly interested in projects that align with and support the National Defense Strategy, found at: <https://www.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf>

The Minerva program aims to promote research in specific areas of social science and to promote a candid and constructive relationship between DoD and the social science academic

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community. The Minerva Research Initiative competition is for research related to the eight (8) topics below.

Topic 1: Sociopolitical (In)Stability, Resilience, and Recovery

Topic 2: Economic Interdependence and Security

Topic 3: Alliances and Burden Sharing

Topic 4: Fundamental Dynamics of Scientific Discovery

Topic 5: Adversarial Information Campaigns

Topic 6: Automated Cyber Vulnerability Analysis

Topic 7: Power, Deterrence, Influence, and Escalation Management for Shaping Operations

Topic 8: Security Risks in Ungoverned & Semi-Governed Spaces

Innovative white papers and proposals related to these research areas are highly encouraged.

See the full Minerva funding opportunity posted under the Related Documents section of this opportunity for details. **Due August 14.**

[Preemptive Expression of Protective Alleles and Response Elements \(PREPARE\)](#)

[Solicitation Number: HR001118S0037 Agency: DARPA](#)

The PREPARE program aims to develop programmable gene modulators for humans that can provide specific, effective, safe, and transient medical countermeasures and prophylaxes to combat biological, chemical, and/or radiological threats to public health and national security.

Due August 27.

[NOAA-NOS-NCCOS-2019-2005608, NOAA RESTORE Science Program](#)

The purpose of this document is to advise the public that NOAA/NOS/NCCOS is soliciting applications for the NOAA RESTORE Science Program for projects of five years in duration with the option for a five year, non-competitive renewal award for high performing projects. This funding opportunity invites applications that propose to identify, track, understand, and/or predict trends and variability in the Gulf of Mexico's living coastal and marine resources and the processes driving them. Funding is contingent upon the availability of funds in the Gulf Coast Restoration Trust Fund. It is anticipated that final recommendations for funding under this Announcement will be made in June 2019, and that projects funded under this Announcement will have a September 1, 2019 start date. Total funding for this competition will be approximately \$15 million over five years and approximately six projects may be funded. The minimum individual award amount is approximately \$500,000 over five years (an average of \$100,000 per year) and the maximum individual award amount is approximately \$7.5 million over five years (an average of \$1.5 million per year). An additional \$15 million may be available for five year, non-competitive renewals for high performing projects. Electronic Access: The NOAA RESTORE Science Program website (<http://restoreactscienceprogram.noaa.gov/>) furnishes supplementary information. Full applications should be submitted through Grants.gov (<http://www.grants.gov>). **Due October 29.**

[FA9550-18-S-0003 Research Interests of the Air Force Office of Scientific Research](#)

AFOSR plans, coordinates, and executes the Air Force Research Laboratory's (AFRL) basic research program in response to technical guidance from AFRL and requirements of the Air Force. Additionally, the office fosters, supports, and conducts research within Air Force,

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university, and industry laboratories; and ensures transition of research results to support U.S. Air Force needs. The focus of AFOSR is on research areas that offer significant and comprehensive benefits to our national war fighting and peacekeeping capabilities. These areas are organized and managed in two scientific Departments: Engineering and Information Science (RTA) and Physical and Biological Sciences (RTB). The research activities managed within each Department are summarized in this section. **Open Until Superseded.**

URL Links to New & Open Funding Solicitations

Links verified June 8, 2018

- [SAMHSA FY 2017 Grant Announcements and Awards](#)
- [Open Solicitations from IARPA \(Intelligence Advanced Research Projects Activity\)](#)
- [Bureau of Educational and Cultural Affairs, Open Solicitations, DOS](#)
- [ARPA-E Funding Opportunity Exchange](#)
- [DOE Funding Opportunity Exchange](#)
- [NPS Broad Agency Announcements \(BAAs\)](#)
- [NIJ Current Funding Opportunities](#)
- [NIJ Forthcoming Funding Opportunities](#)
- [Engineering Information Foundation Grant Program](#)
- [Comprehensive List of Collaborative Funding Mechanisms, NORDP](#)
- [ARL Funding Opportunities — Open Broad Agency Announcements \(BAA\)](#)
- [NASA Open Solicitations](#)
- [CDMRP FY 2018 Funding Announcements](#)
- [DOE/EERE Funding Opportunity Exchange](#)
- [New Funding Opportunities at NIEHS \(NIH\)](#)
- [National Human Genome Research Institute Funding Opportunities](#)
- [Office of Naval Research Currently Active BAAs](#)
- [HRSA Health Professions Open Opportunities](#)
- [Foundation Center RFP Weekly Funding Bulletin](#)

Solicitations Remaining Open from Prior Issues of the Newsletter

NSF/FDA Scholar-in-Residence at FDA

The National Science Foundation (NSF), through the Directorate for Engineering, the Directorate of Computer and Information Science and Engineering Division of Computer and Network Systems, and the Directorate for Mathematical and Physical Sciences Division of Materials Research, along with the U.S. Food and Drug Administration (FDA), through its Center for Devices and Radiological Health (CDRH), have established the NSF/FDA Scholar-in-Residence Program at FDA. This program comprises an interagency partnership for the investigation of scientific and engineering issues concerning emerging trends in medical device technology. This partnership is designed to enable investigators in science, engineering, and computer science to develop research collaborations within the intramural research environment at the FDA. This

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solicitation features three flexible mechanisms for support of research at the FDA: 1) Principal Investigators at FDA; 2) Postdoctoral Researchers at FDA; and 3) Graduate Students at FDA. **Proposals accepted anytime.**

Computer and Information Science and Engineering (CISE) Research Initiation Initiative (CRII)

With the goal of encouraging research independence immediately upon obtaining one's first academic position after receipt of the PhD, the Directorate for Computer and Information Science and Engineering (CISE) will award grants to initiate the course of one's independent research. Understanding the critical role of establishing that independence early in one's career, **it is expected that funds will be used to support untenured faculty or research scientists (or equivalent) in their first three years in a primary academic position after the PhD, but not more than a total of five years after completion of their PhD.** One may not yet have received any other grants or contracts in the Principal Investigator (PI) role from any department, agency, or institution of the federal government, including from the CAREER program or any other program, post-PhD, regardless of the size of the grant or contract, with certain exceptions noted below. Serving as co-PI, Senior Personnel, Postdoctoral Fellow, or other Fellow does not count against this eligibility rule. Grants, contracts, or gifts from private companies or foundations; state, local, or tribal governments; or universities do not count against this eligibility rule. It is expected that these funds will allow the new CISE Research Initiation Initiative PI to support one or more graduate students for up to two years. Faculty at undergraduate and two-year institutions may use funds to support undergraduate students, and may use the additional RUI designation (which requires inclusion of a RUI Impact Statement) -- see https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5518 for additional information. In addition, submissions from all institutions may use funds for postdoctoral scholars, travel, and/or research equipment. **Due August 8.**

Bridges to the Baccalaureate Program (R25)

The NIH Research Education Program (R25) supports research education activities in the mission areas of the NIH. The over-arching goal of this National Institute of General Medical Sciences (NIGMS) R25 program is to support educational activities that enhance the diversity of the biomedical research workforce. To accomplish the stated over-arching goal, this FOA will support creative educational activities with a primary focus on Courses for Skills Development, Research Experiences, and Curriculum or Methods Development. A program application must include each activity, and describe how they will be synergized to make a comprehensive program. The Bridges to Baccalaureate Program is intended to provide these activities to community college students to increase transition to and completion of Bachelor's degree in biomedical sciences. This program requires partnerships between community colleges or other two-year post-secondary educational institutions granting the associate degree with colleges or universities that offer the baccalaureate degree. Additionally, recruitment and retention plans are required as part of the application. **Due September 25.**

NIH: Bridges to the Doctorate (R25)

The NIH Research Education Program (R25) supports research education activities in the mission areas of the NIH. The over-arching goal of this NIGMS R25 program is to support

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educational activities that enhance the diversity of the biomedical, behavioral and clinical research workforce. To accomplish the stated over-arching goal, this FOA will support creative educational activities with a primary focus on Courses for Skills Development and Research Experiences. The Bridges to Doctorate Program is intended to provide these activities to master's level students to increase transition to and completion of PhDs in biomedical sciences. This program requires partnerships between master's degree-granting institutions with doctorate degree-granting institutions. Applicants should directly address how the set of activities will complement and/or enhance the training of a diverse workforce that also meets the nation's biomedical and clinical research needs by discussing 1) the rationale underlying the balance of effort and resources dedicated to each activity; 2) how the activities integrate; and 3) objective indicators that can measure the effectiveness of the program. A program application must include each activity, and describe how they will be synergized to make a comprehensive program. Additionally, recruitment and retention plans are expected as part of the application. **Due September 25.**

Innovations at the Nexus of Food, Energy and Water Systems (INFEWS)

The INFEWS program seeks to support research that conceptualizes FEW systems broadly and inclusively, incorporating social and behavioral processes (such as decision making and governance), physical processes (such as built infrastructure and new technologies for more efficient resource utilization), natural processes (such as biogeochemical and hydrologic cycles), biological processes (such as agroecosystem structure and productivity), and cyber-components (such as sensing, networking, computation and visualization for decision-making and assessment). Investigations of these complex systems may produce discoveries that cannot emerge from research on food or energy or water systems alone. It is the synergy among these components in the context of sustainability that will open innovative science and engineering pathways to produce new knowledge, novel technologies, and innovative predictive capabilities.

The overarching goal of the INFEWS program is to catalyze well-integrated, convergent research to transform understanding of the FEW Nexus as integrated social, engineering, physical, and natural systems in order to improve system function and management, address system stress, increase resilience, and ensure sustainability. The NSF INFEWS activity is designed specifically to attain the following goals:

1. Significantly advance our understanding of the food-energy-water system of systems through quantitative, predictive and computational modeling, including support for relevant cyberinfrastructure;
2. Develop real-time, cyber-enabled interfaces that improve understanding of the behavior of FEW systems and increase decision support capability;
3. Enable research that will lead to innovative and integrated social, engineering, physical, and natural systems solutions to critical FEW systems problems;
4. Grow the scientific workforce capable of studying and managing the FEW system of systems, through education and other professional development opportunities.

This initiative enables interagency cooperation on one of the most pressing problems of the millennium - understanding interactions across the FEW nexus - how dynamics of the FEW Nexus are likely to affect our world, and how we can proactively plan for consequences. This

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solicitation allows the partner agencies - National Science Foundation (NSF) and the United States Department of Agriculture National Institute of Food and Agriculture (USDA/NIFA) - to combine resources to identify and fund the most meritorious and highest-impact projects that support their respective missions, while eliminating duplication of effort and fostering collaboration between agencies and the investigators they support. **Due September 26.**

Agriculture and Food Research Initiative - Sustainable Agricultural Systems

Applications to the FY 2018 Agriculture and Food Research Initiative - Sustainable Agricultural Systems (SAS) Request for Applications (RFA) must focus on approaches that promote transformational changes in the U.S. food and agriculture system within the next 25 years. NIFA seeks creative and visionary applications that take a systems approach, and that will significantly improve the supply of abundant, affordable, safe, nutritious, and accessible food, while providing sustainable opportunities for expansion of the bioeconomy through novel animal, crop, and forest products and supporting technologies. These approaches must demonstrate current and future social, behavioral, economic, health, and environmental impacts. Additionally, the outcomes of the work being proposed must result in societal benefits, including promotion of rural prosperity and enhancement of quality of life for those involved in food and agricultural value chains from production to utilization and consumption. See AFRI SAS RFA for details. [Webinar: AFRI Sustainable Agricultural Systems \(May 23\)](#) **Due October 10.**

Fiscal Year (FY) 2019 Department of Defense Multidisciplinary Research Program of the University Research Initiative

The MURI program supports basic research in science and engineering at U.S. institutions of higher education (hereafter referred to as "universities") that is of potential interest to DoD. The program is focused on multidisciplinary research efforts where more than one traditional discipline interacts to provide rapid advances in scientific areas of interest to the DoD. As defined in the DoD Financial Management Regulation: Basic research is systematic study directed toward greater knowledge or understanding of the fundamental aspects of phenomena and of observable facts without specific applications towards processes or products in mind. It includes all scientific study and experimentation directed toward increasing fundamental knowledge and understanding in those fields of the physical, engineering, environmental, and life sciences related to long-term national security needs. It is farsighted high payoff research that provides the basis for technological progress (DoD 7000.14-R, vol. 2B, chap. 5, para. 050201.B). DoD's basic research program invests broadly in many fields to ensure that it has early cognizance of new scientific knowledge. The FY 2019 MURI competition is for the topics listed below. Detailed descriptions of the topics and the Topic Chief for each can be found in Section II. I, entitled, "SPECIFIC MURI TOPICS," The detailed descriptions are intended to provide the applicant a frame of reference and are not meant to be restrictive to the possible approaches to achieving the goals of the topic and the program. Innovative ideas addressing these research topics are highly encouraged. Proposals from a team of university investigators are warranted when the necessary expertise in addressing the multiple facets of the topics may reside in different universities, or in different departments in the same university. By supporting multidisciplinary teams, the program is complementary to other DoD basic research

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programs that support university research through single-investigator awards. Proposals shall name one Principal Investigator (PI) as the responsible technical point of contact. Similarly, one institution shall be the primary awardee for the purpose of award execution. The PI shall come from the primary institution. The relationship among participating institutions and their respective roles, as well as the apportionment of funds including sub-awards, if any, shall be described in both the proposal text and the budget. **Due October 16.**

National Geospatial-Intelligence Agency Academic Research Program (NARP)

NGA welcomes all innovative ideas for path-breaking research that may advance the GEOINT mission. The NGA mission is to provide timely, relevant, and accurate geospatial intelligence (GEOINT) in support of national security objectives. GEOINT is the exploitation and analysis of imagery and geospatial information to describe, assess, and visually depict physical features and geographically referenced activities on the Earth. GEOINT consists of imagery, imagery intelligence, and geospatial information. NGA offers a variety of critical GEOINT products in support of U.S. national security objectives and Federal disaster relief, including aeronautical, geodesy, hydrographic, imagery, geospatial and topographical information. The NGA Academic Research Program (NARP) is focused on innovative, far-reaching basic and applied research in science, technology, engineering and mathematics having the potential to advance the GEOINT mission. The objective of the NARP is to support innovative, high-payoff research that provides the basis for revolutionary progress in areas of science and technology affecting the needs and mission of NGA. This research also supports the National System for Geospatial Intelligence (NSG), which is the combination of technology, systems and organizations that gather, produce, distribute and consume geospatial data and information. This research is aimed at advancing GEOINT capabilities by improving analytical methods, enhancing and expanding systems capabilities, and leveraging resources for common NSG goals. The NARP also seeks to improve education in scientific, mathematics, and engineering skills necessary to advance GEOINT capabilities. It is NGA's intent to solicit fundamental research under this BAA. Fundamental research means basic and applied research in science and engineering, the results of which ordinarily are published and shared broadly within the scientific community, as distinguished from proprietary research and from Industrial development, design, production, and product utilization, the results of which ordinarily are restricted for proprietary or national security reason. (National Security Decision Directive (NSDD) 189, National Policy on the Transfer of Scientific, Technical, and Engineering Information). NGA seeks proposals from eligible U.S. institutions for path-breaking GEOINT research in areas of potential interest to NGA, the DoD, and the Intelligence Community (IC). **Open to Dec. 31, 2018.**

Open Solicitations and BAAs

[BAA's remain open for one or more years. During the open period, agency research priorities may change or other **modifications are made to a published BAA**. If you are submitting a proposal in response to an open solicitation, as below, check for modifications to the BAA at [Grants.gov](https://www.Grants.gov) or by utilizing [Modified Opportunities by Agency](#) to receive a Grants.gov notification of recently modified opportunities by agency name.]

[HR001117S0040 Defense Sciences Office \(DSO\) Office-wide DARPA](#)

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The mission of the Defense Advanced Research Projects Agency (DARPA) Defense Sciences Office (DSO) is to identify and pursue high-risk, high-payoff research initiatives across a broad spectrum of science and engineering disciplines and to transform these initiatives into disruptive technologies for U.S. national security. In support of this mission, the DSO Office-wide BAA invites proposers to submit innovative basic or applied research concepts that explore Physical and Natural Systems, Human-Machine and Social Systems, and/or Math and Computational Systems through the lens of one or more of the following technical domains: Complexity Engineering, Science of Design, Noosphere, Fundamental Limits, and New Foundations. Proposals must investigate innovative approaches that enable revolutionary advances. DSO is explicitly not interested in approaches or technologies that primarily result in evolutionary improvements to the existing state of practice. **Open to July 2018.**

[PAR-16-242 Bioengineering Research Grants \(BRG\) \(R01\) Department of Health and Human Services National Institutes of Health](#)

The purpose of this funding opportunity announcement is to encourage collaborations between the life and physical sciences that: 1) apply a multidisciplinary bioengineering approach to the solution of a biomedical problem; and 2) integrate, optimize, validate, translate or otherwise accelerate the adoption of promising tools, methods and techniques for a specific research or clinical problem in basic, translational, or clinical science and practice. An application may propose design-directed, developmental, discovery-driven, or hypothesis-driven research and is appropriate for small teams applying an integrative approach to increase our understanding of and solve problems in biological, clinical or translational science. **Open to May 9, 2019.**

[BAA-RQKD-2014-0001 Open Innovation and Collaboration Department of Defense Air Force -- Research Lab](#)

Open innovation is a methodology to capitalize on diverse, often non-traditional talents and insights, wherever they reside, to solve problems. Commercial industry has proven open innovation to be an effective and efficient mechanism to overcome seemingly impossible technology and/or new product barriers. AFRL has actively and successfully participated in collaborative open innovation efforts. While these experiences have demonstrated the power of open innovation in the research world, existing mechanisms do not allow AFRL to rapidly enter into contractual relationships to further refine or develop solutions that were identified. This BAA will capitalize on commercial industry experience in open innovation and the benefits already achieved by AFRL using this approach. This BAA will provide AFRL an acquisition tool with the flexibility to rapidly solicit proposals through Calls for Proposals and make awards to deliver innovative technical solutions to meet present and future compelling Air Force needs as ever-changing operational issues become known. The requirements, terms and specific deliverables of each Call for Proposals will vary depending on the nature of the challenge being addressed. It is anticipated that Call(s) for Proposals will address challenges in (or the intersection between) such as the following technology areas: Materials: - Exploiting material properties to meet unique needs - Material analysis, concept / prototype development, and scale up Manufacturing Processes that enable affordable design, production and sustainment operations Aerospace systems: - Vehicle design, control, and coordinated autonomous and/or manned operations - Power and propulsion to enable next generation systems Human

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Effectiveness: - Methods and techniques to enhance human performance and resiliency in challenging environments - Man – Machine teaming and coordinated activities Sensors and Sensing Systems: - Sensor and sensing system concept development, design, integration and prototyping - Data integration and exploitation. **Open to July 12, 2019.**

[HDTRA1-14-24-FRCWMD-BAA Fundamental Research to Counter Weapons of Mass Destruction](#)

** Fundamental Research BAA posted on 20 March 2015.** Potential applicants are strongly encouraged to review the BAA in its entirety. **Please note that ALL general correspondence for this BAA must be sent to HDTRA1-FRCWMD-A@dtra.mil. Thrust Area-specific correspondence must be sent to the applicable Thrust Area e-mail address listed in Section 7: Agency Contacts.** **Open to Sept. 30, 2019.**

[BAA-RQKH-2015-0001 Methods and Technologies for Personalized Learning, Modeling and Assessment Air Force -- Research Lab](#)

The Air Force Research Laboratories and 711th Human Performance Wing are soliciting white papers (and later technical and cost proposals) on the following research effort. This is an open ended BAA. The closing date for submission of White Papers is 17 Nov 2019. This program deals with science and technology development, experimentation, and demonstration in the areas of improving and personalizing individual, team, and larger group instructional training methods for airmen. The approaches relate to competency definition and requirements analysis, training and rehearsal strategies, and models and environments that support learning and proficiency achievement and sustainment during non-practice of under novel contexts. This effort focuses on measuring, diagnosing, and modeling airman expertise and performance, rapid development of models of airman cognition and specifying and validating, both empirically and practically, new classes of synthetic, computer-generated agents and teammates. An Industry Day was held in November 2014. Presentation materials from the Industry Day and Q&A's are attached. If you would like a list of Industry Day attendees, send an email request to helen.williams@us.af.mil **Open until November 17, 2019.**

[BAA-AFRL-RQKMA-2016-0007 Air Force Research Laboratory, Materials & Manufacturing Directorate, Functional Materials and Applications \(AFRL/RXA\) Two-Step Open BAA](#)

Air Force Research Laboratory, Materials & Manufacturing Directorate is soliciting White Papers and potentially technical and cost proposals under this two-step Broad Agency Announcement (BAA) that is open for a period of five (5) years. Functional Materials technologies that are of interest to the Air Force range from materials and scientific discovery through technology development and transition, and support the needs of the Functional Materials and Applications mission. Descriptors of Materials and Manufacturing Directorate technology interests are presented in the context of functional materials core technical competencies and applications. Applicable NAICS codes are 541711 and 541712. **Open to April 20, 2021.**

[Army Research Office Broad Agency Announcement for Basic and Applied Scientific Research](#)

This BAA sets forth research areas of interest to the ARO. This BAA is issued under FAR 6.102(d)(2), which provides for the competitive selection of basic and applied research

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proposals, and 10 U.S.C. 2358, 10 U.S.C. 2371, and 10 U.S.C. 2371b, which provide the authorities for issuing awards under this announcement for basic and applied research. The definitions of basic and applied research may be found at 32 CFR 22.105. Proposals submitted in response to this BAA and selected for award are considered to be the result of full and open competition and in full compliance with the provision of Public Law 98-369, "The Competition in Contracting Act of 1984" and subsequent amendments. **Open to April 30, 2022.**

FA9453-17-S-0005 Research Options for Space Enterprise Technologies (ROSET)

The Air Force Research Laboratory (AFRL) Space Vehicle Directorate (RV) is interested in receiving proposals from all offerors to advance state of the art technology and scientific knowledge supporting all aspects of space systems including payload adapters, on-orbit systems, communications links, ground systems, and user equipment. Efforts will include basic and advanced research, advanced component and technology development, prototyping, and system development and demonstration and will span the range from concept and laboratory experimentation to testing/demonstration in a relevant environment. Specific tasks include design, development, analysis, fabrication, integration, characterization, testing/experimentation, and demonstration of hardware and software products. **Open to September 22, 2022.**

Broad Agency Announcement for the Army Rapid Capabilities Office

This Broad Agency Announcement (BAA), W56JSR-18-S-0001, is sponsored by the Army Rapid Capabilities Office (RCO). The RCO serves to expedite critical capabilities to the field to meet Combatant Commanders' needs. The Office enables the Army to experiment, evolve, and deliver technologies in real time to address both urgent and emerging threats while supporting acquisition reform efforts. The RCO executes rapid prototyping and initial equipping of capabilities, particularly in the areas of cyber, electronic warfare, survivability and positioning, navigation and timing (PNT), as well as other priority projects that will enable Soldiers to operate and win in contested environments decisively. This BAA is an expression of interest only and does not commit the Government to make an award or pay proposal preparation costs generated in response to this announcement.

Questions concerning the receipt of your submission should be directed:

<http://rapidcapabilitiesoffice.army.mil/eto/>

Technical questions will be sent to the appropriate Technical Points of Contact (TPOC), topic authors, and/or Subject Matter Experts (SMEs) to request clarification of their areas of interest. No discussions are to be held with offerors by the technical staff after proposal submission without permission of the Army Contracting Command-Aberdeen Proving Ground (ACC-APG) Contracting Officer. **Open to March 23, 2023.**

W911NF-18-S-0005 U.S. Army Research Institute for the Behavioral and Social Sciences Broad Agency Announcement for Basic, Applied, and Advanced Research (Fiscal Years 2018-2023)

The U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) announces the ARI FY18-23 Broad Agency Announcement for Basic, Applied, and Advanced Scientific Research. This Broad Agency Announcement, which sets forth research areas of interest to the United States Army Research Institute for the Behavioral and Social Sciences, is issued under the

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provisions of paragraph 6.102(d)(2) of the Federal Acquisition Regulation (FAR), which provides for the competitive selection of proposals. Proposals submitted in response to this BAA and selected for award are considered to be the result of full and open competition and in full compliance with the provisions of Public Law 98-369 (The Competition in Contracting Act of 1984) and subsequent amendments. The U.S. Army Research Institute for the Behavioral and Social Sciences is the Army's lead agency for the conduct of research, development, and analyses for the improvement of Army readiness and performance via research advances and applications of the behavioral and social sciences that address personnel, organization, training, and leader development issues. Programs funded under this BAA include basic research, applied research, and advanced technology development that can improve human performance and Army readiness.

Those contemplating submission of a proposal are encouraged to contact the ARI Technical Point of Contact (TPOC) for the respective topic area cited in the BAA. If the R&D warrants further inquiry and funding is available, submission of a proposal will be entertained. The recommended three-step sequence is (1) telephone call to the ARI TPOC or responsible ARI Manager, (2) white paper submission, (3) full proposal submission. Awards may be made in the form of contracts, grants, or cooperative agreements. Proposals are sought from educational institutions, non-profit/not-for-profit organizations, and commercial organizations, domestic or foreign, for research and development (R&D) in those areas specified in the BAA. The U.S. Army Research Institute for the Behavioral and Social Sciences encourages Historically Black Colleges and Universities/Minority Serving Institutions (HBCU/MSI) and small businesses to submit proposals for consideration. Foreign owned, controlled, or influenced organizations are advised that security restrictions may apply that could preclude their participation in these efforts. Government laboratories, Federal Funded Research and Development Centers (FFRDCs), and US Service Academies are not eligible to participate as prime contractors or recipients. However, they may be able to participate as subcontractors or Subrecipients (eligibility will be determined on a case by case basis). **Open to April 29, 2023.**

FA8650-17-S-6001 Science and Technology for Autonomous Teammates (STAT)

The objective of Science and Technology for Autonomous Teammates (STAT) program is to develop and demonstrate autonomy technologies that will enable various AF mission sets. This research will be part of Experimentation Campaigns in: 1 -Multi-domain Command and Control; 2-Intelligence, Surveillance, Recognizance (ISR) Processing Exploitation and Dissemination (PED); and 3- Manned-Unmanned combat Teaming to demonstrate autonomy capabilities to develop and demonstrate autonomy technologies that will improve Air Force operations through human-machine teaming and autonomous decision-making. The technology demonstrations that result from this BAA will substantially improve the Air Force's capability to conduct missions in a variety of environments while minimizing the risks to Airmen. The overall impact of integration of autonomous systems into the mission space will enable the Air Force to operate inside of the enemy's decision loop.

STAT will develop and apply autonomy technologies to enhance the full mission cycle, including mission planning, mission execution, and post-mission analysis. Particular areas of interest include multi-domain command and control, manned-unmanned teaming, and information analytics. The technology demonstrations that result from this BAA will

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substantially improve the Air Force's capability to conduct missions in a variety of environments while minimizing the risks to Airmen. The overall impact of integration of autonomous systems into the mission space will enable the Air Force to operate inside of the enemy's decision loop. This effort plans to demonstrate modular, transferable, open system architectures, and deliver autonomy technologies applicable to a spectrum of multi-domain applications. Development efforts will mature a set of technologies that enable airmen to plan, command, control, and execute missions with manageable workloads. The software algorithms and supporting architectures shall:

- Ingest and understand mission taskings and commander's intent
- Respond appropriately to human direction and orders
- Respond intelligently to dynamic threats and unplanned events

Chosen technologies will be open, reusable, adaptable, platform agnostic, secure, credible, affordable, enduring, and able to be integrated into autonomous systems. The program will be comprised of various technologies developed by AFRL and Industry, integrated into technology demonstrations and deliverables with all the necessary software, hardware, and documentation to support AFRL-owned modeling and simulation environments for future capability developments. Thus, all technology development efforts must adhere to interface designs and standards. **Open to July 23, 2023.**

Changes at Academic Research Funding Strategies

By Lucy Deckard

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Expanded Editing Services

In response to numerous requests, we are now expanding our editing services to accommodate clients working on manuscripts as well as proposals. We are also offering editing only (as opposed to intensive grantsmanship assistance) at several levels:

- **Technical editing:** Editing for technical clarity as well as grammar, punctuation, etc.
- **Editing:** Editing for grammar, punctuation, etc.
- **Editing Especially for Non-native English Speakers:** Editing for grammar, punctuation, usage, etc. with special attention to mistakes commonly made by non-native English speakers.

These options will provide a more economical option for authors who don't need our intensive review and editing services. More information will be posted on [our website](#) soon.

Former NIH branch chief, Dr. John Williamson, joining ARFS

We are excited to announce that [Dr. John Williamson](#) is joining Academic Research Funding Strategies as one of our consultants. He will work with clients applying to NIH, providing one-on-one mentoring as well as reviews of NIH proposal drafts. A short bio is provided below.

Dr. Williamson is an emeritus professor of medicinal chemistry at the University of Mississippi, a former NIH branch chief, and currently a research initiatives coordinator at the University of Dayton. During his tenure as a full professor he garnered millions in extramural funding from: federal agencies including the NIH, NSF, CDC, and DoD; pharmaceutical companies including Merck and Schering-Plough; as well as foundations and societies including the Elsa Pardee Foundation, Sigma Xi, the American Society of Pharmacognosy, and the Bill and Melinda Gates Foundation.

At NIH he served as a Branch Chief of Basic and Mechanistic Research, maintaining a branch grants and contract portfolio of approximately \$50M/yr. The portfolio included projects associated with brain neuroscience, bioengineering of opiate pathways, mechanisms associated with chronic pain, brain microbiome connection mechanisms, pharmacodynamics and pharmacokinetics and methodologies associated with bioactive natural products, analgesic cannabinoids, various small business awards, complementary medical approaches, and training programs. While at NIH, Williamson's portfolio contained a broad array of funding mechanisms including: DP1, DP2, F31, F32, K00, K01, K99, P01, P20, P30, P50, R01, R03, R13, R15, R21, R41, R42, R43, R44, R61, R61, R90, T32, T42, T90, and U01s. In addition, he was the named program contact on more than 75 published funding opportunity announcements (RFAs & PAs). Williamson also worked on interagency collaborative programs with the NSF, FDA, USDA, and FTC. He is currently associated with the University of Dayton where, as Research Initiatives Coordinator, he helps faculty and staff in developing and submitting competitive research proposals.

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Academic Research Funding Strategies, LLC [\(Page 1\)](#)

<http://academicresearchgrants.com/home>

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What We Do--

We provide consulting for colleges and universities on a wide range of topics related to research development and grant writing, including:

- Strategic Planning - Assistance in [formulating research development strategies and building institutional infrastructure](#) for research development (including special strategies for Emerging Research Institutions, Predominantly Undergraduate Institutions and Minority Serving Institutions)
- Training for Faculty - Workshops, seminars and webinars on [how to find and compete for research funding](#) from NSF, NIH, DoE and other government agencies as well as foundations. Proposal development retreats for new faculty.
- Large proposals - Assistance in [planning, developing and writing institutional and center-level proposals](#) (e.g., NSF ERC, STC, NRT, ADVANCE, IUSE, Dept of Ed GAANN, DoD MURI, etc.)
- Assistance for [new and junior faculty](#) - help in identifying funding opportunities and developing competitive research proposals, particularly to NSF CAREER, DoD Young Investigator and other junior investigator programs
- Assistance on your project narrative: in-depth reviews, rewrites, and edits
- Editing and proof reading of journal articles, book manuscripts, proposals, etc.
- Facilities and Instrumentation - Assistance in identifying and competing for [grants to fund facilities and instrumentation](#)
- Training for Staff - [Professional Development](#) for research office and sponsored projects staff

Workshops by Academic Research Funding Strategies

We offer workshops on research development and grant writing for faculty and research professionals based on all published articles.

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