



# GRANTSMANSHIP WORKSHOP

The Graduate School, University of Maryland

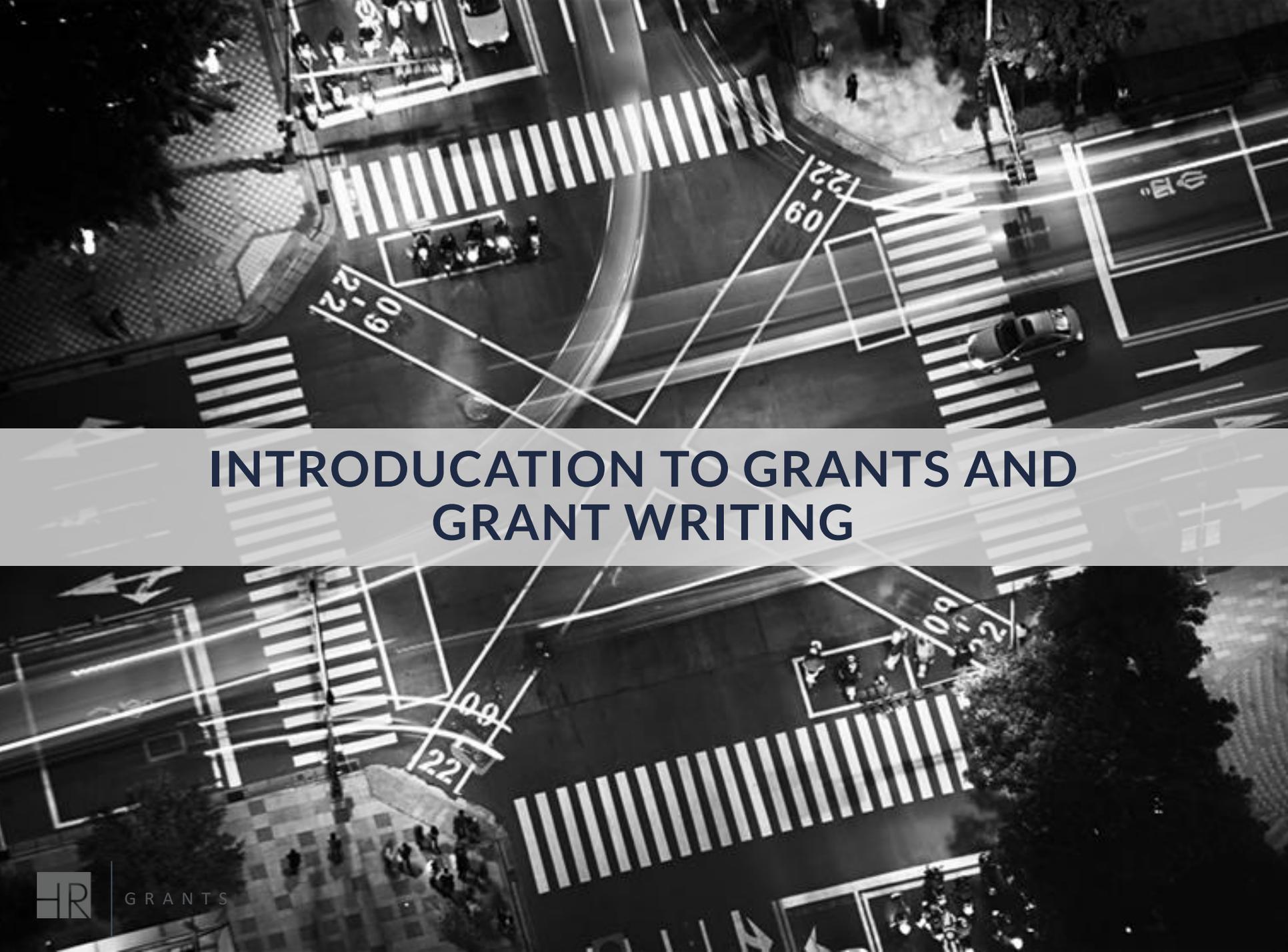
# PRESENTER



## CLINTON DOGGETT

### *Senior Grants Advisor*

Clinton Doggett holds an MFA in Creative Nonfiction (Goucher College) and a BA in English and Communication (University of Pittsburgh). He joined Hanover in 2008 and has served in a range of positions, from research analyst to project manager to team leader, focusing primarily on supporting strategic advising and grant development activities for higher education clients. At Hanover, Clinton serves as the team's Senior Grants Advisor, focused on delivering grantsmanship trainings, providing prospect research consultation, spearheading strategic initiatives, and managing relationships with institutions.

An aerial, black and white photograph of a city street intersection. The image shows a crosswalk with white stripes, a car, and several people. A semi-transparent grey rectangular box is overlaid in the center of the image, containing the title text.

# INTRODUCTION TO GRANTS AND GRANT WRITING

# GRANTS: WHAT? WHO? WHY?

## WHAT IS A GRANT?

Grants are (generally) non-repayable funds or products disbursed by one party, often a governmental agency, corporation, or foundation/trust, to a recipient, often a nonprofit entity, educational institution, business or (rarely) an individual.

## WHO MAKES GRANTS?

- Federal agencies
- State and local government agencies
- National, regional, local, family, community, and corporate foundations
- Public charities
- Professional or industry associations
- Businesses and companies

## WHY DO THEY MAKE THEM?

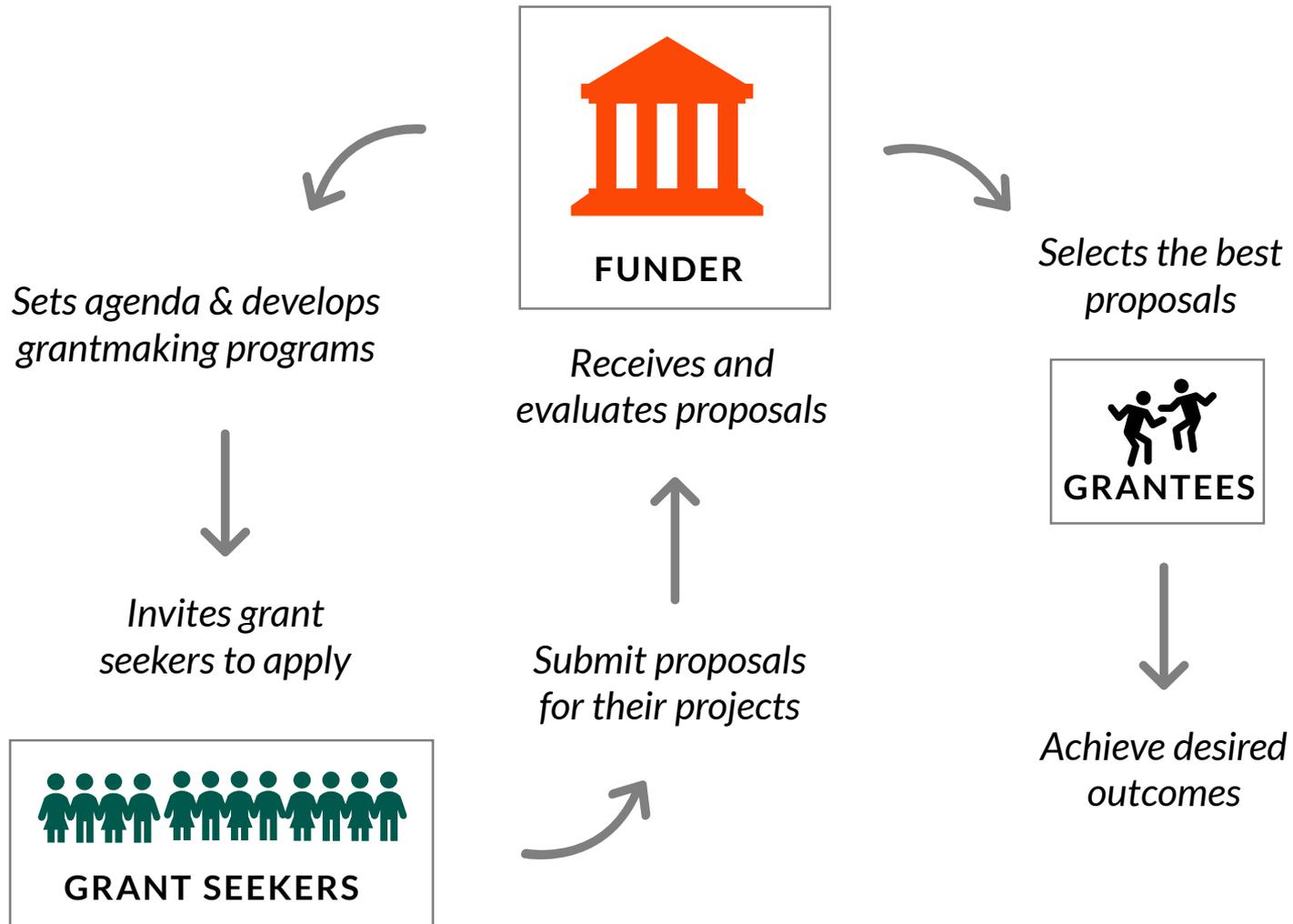
- Local / Regional / National / Global Need
- Promote Change & Improvement
- Philanthropic Investment
- Preferred Tax Status
- Public Recognition

# FELLOWSHIPS

## What is a fellowship?

- Focused on **developing leadership** in a particular field.
- Primary focus on **professional development** of individuals.
- Typically **short-term** in duration (several months to a year).
- Traditionally focused on **graduate and post-graduate** students.
- Activities supported vary by fellowship– **research, study, training, teaching**, etc.

# THE GRANTSEEKING PROCESS



# FULFILLING THE FUNDER'S MISSION

Grantmakers want to fund institutions and people best positioned to help them realize their (sometimes lofty and ambitious) missions



To promote the progress of science; to advance the national health, prosperity, and welfare; and to secure the national defense; and for other purposes...



To reduce poverty and injustice, strengthen democratic values, promote international cooperation, and advance human achievement...



To invest in education research that cultivates learning and transforms lives...



To help people make informed healthcare decisions, and improves healthcare delivery and outcomes...

# WHAT MAKES AN IDEA COMPETITIVE?

*To be competitive for grant funding, you need to have an exciting idea.*

A competitive grant idea:

- ✓ Fills a **demonstrable gap** (e.g., in services or knowledge)
- ✓ Is **innovative** and interesting to people in the field
- ✓ Produces **something of value** within a specified timeframe
- ✓ Has a strong, **measurable impact**
- ✓ Is **timely**

# GRANT SOLICITATIONS

*Grant solicitations give information on the requirements associated with the particular grant program:*

- Goals
- Background
- Award Information
- Eligibility
- Timing
- Program Requirements
- Selection Criteria
- Review Process
- Administrative Process

# THE PROPOSAL NARRATIVE

*The proposal narrative is how grant seekers make their case that they are worthy of being funded. Typical components:*

- Statement of the Problem
- Literature Review
- Conceptual Framework
- Hypotheses or Research Questions
- Methodology/ Strategy
- Scope of Work
- Management Plan
- Staff and Institutional Qualifications

# NAVIGATING THE FUNDING LANDSCAPE AND FINDING STRONG PROSPECTS



GRANTS

# THE FUNDING LANDSCAPE

## GOV'T AGENCIES



National Institutes  
of Health



## FOUNDATIONS

### W. M. KECK FOUNDATION



France-Merrick  
FOUNDATION



FORD  
FOUNDATION



THE ANNIE E. CASEY FOUNDATION

# PRIVATE VS. GOVERNMENT GRANTMAKERS

*They have very little in common beyond a mandate to give away money with strings attached.*

## GOVERNMENT

- Get their funding from **taxpayers**
- Are responsible to **legislators** and administrations
- Are required to be **transparent** in their activities
- Follow **clearly defined criteria** and processes

## PRIVATE

- Get their funding from **donors**
- Are responsible to **trustees**
- Are **not required** to explain their decisions to the public
- Often **lack clear definition** for their criteria and processes, or **choose not to follow** those they adopt

# GOVERNMENT FUNDERS

# GOVERNMENT GRANTMAKING

Government agencies and organizations fund a variety of projects, programs, research, and product development through grants. Each agency exists to advance a specific agenda. This agenda is typically outlined in a public document called a [strategic plan](#).



## KEY FEDERAL GRANTS STATS

**26**

TOTAL FEDERAL  
GRANTMAKING AGENCIES

**1,000+**

TOTAL GRANT PROGRAMS  
ACROSS ALL AGENCIES

**\$662.7 Billion**

TOTAL FEDERAL SPENDING  
FOR GRANTS IN FY 2016

# STATE AGENCIES

- Many state agencies maintain grant programs relevant to postsecondary institutions.
- States vary significantly in the amount of competitive funding offered.
- State agencies often serve as pass-throughs for federal grant funding, holding their own statewide competitions.



# SEEKING GOVERNMENT GRANTS

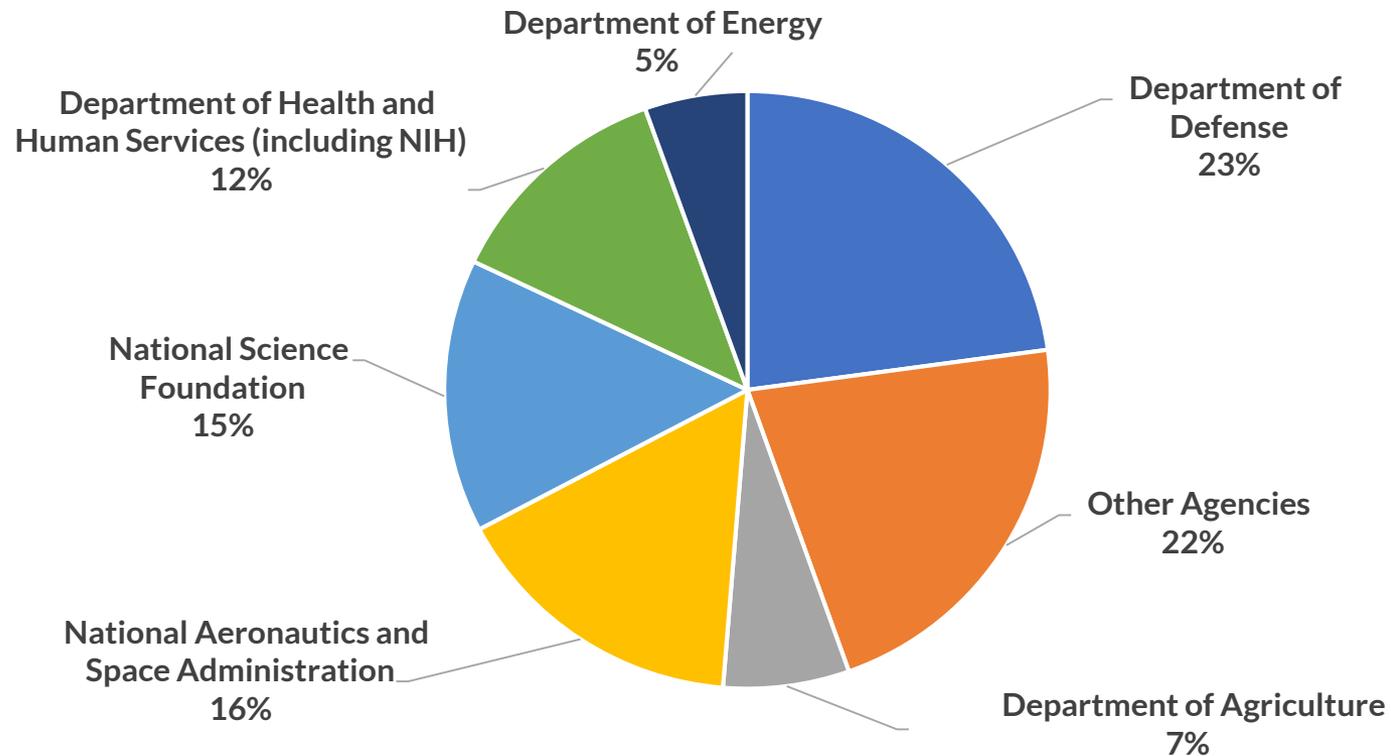


*“O.K., let’s slowly lower in the grant money.”*

- Each federal grant-making agency will define its **rating criteria** in the **Program Solicitation** or in public documents.
- Understanding the **rating criteria** and/or **scoring formula** is key to winning a federal grant award.
- **Technical compliance** is imperative to success.

# FEDERAL GRANTS AT UMD

## Federally funded R&D expenditures, by federal agency: 2017



# NATIONAL SCIENCE FOUNDATION



- Funds research and education in **most fields of science and engineering**.
- Awards grants, and cooperative agreements to more than **2,000 colleges, universities**, K-12 school systems, businesses, informal science organizations and other research organizations throughout the United States.
- Accounts for about **one-fourth** of federal support to academic institutions for basic research.
- Receives **~40,000 proposals** each year for research, education and training projects, of which ~11,000 are funded.

# 7 NSF DIRECTORATES

## Biological Sciences (BIO)

- Biological Infrastructure (DBI)
- Environmental Biology (DEB)
- Emerging Frontiers (EF)
- Integrative Organismal Systems (IOS)
- Molecular and Cellular Biosciences (MCB)

## Computer and Information Science and Engineering (CISE)

- Office of Advanced Cyberinfrastructure (OAC)
- Computing and Communication Foundations (CCF)
- Computer and Network Systems (CNS)
- Information and Intelligent Systems (IIS)

## Education and Human Resources (EHR)

- Graduate Education (DGE)
- Research on Learning in Formal and Informal Settings (DRL)
- Undergraduate Education (DUE)
- Human Resource Development (HRD)

## Engineering (ENG)

- Chemical, Bioengineering, Environmental and Transport Systems (CBET)
- Civil, Mechanical and Manufacturing Innovation (CMMI)
- Electrical, Communications and Cyber Systems (ECCS)
- Engineering Education and Centers (EEC)
- Emerging Frontiers and Multidisciplinary Activities (EFMA)
- Industrial Innovation and Partnerships (IIP)

## Geosciences (GEO)

- Atmospheric and Geospace Sciences (AGS)
- Earth Sciences (EAR)
- Ocean Sciences (OCE)
- Office of Polar Programs (OPP)

## Mathematical and Physical Sciences (MPS)

- Astronomical Sciences (AST)
- Chemistry (CHE)
- Materials Research (DMR)
- Mathematical Sciences (DMS)
- Physics (PHY)
- Office of Multidisciplinary Activities (OMA)

## Social, Behavioral and Economic Sciences (SBE)

- Behavioral and Cognitive Sciences (BCS)
- National Center for Science and Engineering Statistics (NCSES)
- Social and Economic Sciences (SES)
- SBE Office of Multidisciplinary Activities (SMA)

# NSF PROGRAMS FOR GRAD STUDENTS

- Archaeology Program - Doctoral Dissertation Research Improvement Awards
- Biological Anthropology Program - Doctoral Dissertation Research Improvement Grants
- Centers of Research Excellence in Science and Technology (CREST) and HBCU Research Infrastructure for Science and Engineering (RISE)
- Cultural Anthropology Program - Doctoral Dissertation Research Improvement Grants
- CyberCorps(R) Scholarship for Service
- Decision, Risk and Management Sciences
- Economics
- Geography and Spatial Sciences Program - Doctoral Dissertation Research Improvement Awards
- **Graduate Research Fellowship Program**
- Innovations in Graduate Education (IGE) Program
- Linguistics Program - Doctoral Dissertation Research Improvement Awards
- Mathematical Sciences Postdoctoral Research Fellowships
- National Science Foundation Research Traineeship (NRT) Program
- National STEM Education Distributed Learning
- NSF Astronomy and Astrophysics Postdoctoral Fellowships
- Political Science Doctoral Dissertation Research Improvement Grants
- Research on the Science and Technology Enterprise: Statistics and Surveys - R&D, U.S. S&T Competitiveness, STEM Education, S&T Workforce
- Robert Noyce Teacher Scholarship Program
- Sociology Program - Doctoral Dissertation Research Improvement Awards
- Non-Academic Research Internships for Graduate Students (INTERN) Supplemental Funding Opportunity



# NATIONAL INSTITUTES OF HEALTH



**NIH is the largest public funder of biomedical research in the world, investing more than \$32 billion a year to enhance life, and reduce illness and disability.**

**Each Institute within NIH has a distinct mission that focuses on a specific disease area, organ system, or stage of life.**

- National Cancer Institute (NCI)
- National Eye Institute (NEI)
- National Heart, Lung, and Blood Institute (NHLBI)
- National Human Genome Research Institute (NHGRI)
- National Institute on Aging (NIA)
- National Institute on Alcohol Abuse and Alcoholism (NIAAA)
- National Institute of Allergy and Infectious Diseases (NIAID)
- National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)
- National Institute of Biomedical Imaging and Bioengineering (NIBIB)
- Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD)
- National Institute on Deafness and Other Communication Disorders (NIDCD)
- National Institute of Dental and Craniofacial Research (NIDCR)
- National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)
- National Institute on Drug Abuse (NIDA)
- National Institute of Environmental Health Sciences (NIEHS)
- National Institute of General Medical Sciences (NIGMS)
- National Institute of Mental Health (NIMH)
- National Institute on Minority Health and Health Disparities (NIMHD)
- National Institute of Neurological Disorders and Stroke (NINDS)
- National Institute of Nursing Research (NINR)
- National Library of Medicine (NLM)

# NIH PROGRAMS

NIH uses **activity codes** to differentiate the wide variety of research-related programs it supports. NIH Institutes and Centers may vary in the way they use activity codes.

## TYPES OF GRANT PROGRAMS

- Research Grants (R Series)
- Career Development Awards (K Series)
- Research Training and Fellowships (T & F Series)
- Program Project/Center Grants (P Series)
- Resource Grants (Various Series)
- Trans-NIH Programs

# NIH FELLOWSHIPS (F SERIES)

**Ruth L. Kirschstein Individual  
Predoctoral NRSA for MD/PhD and  
other Dual Degree Fellowships (F30)**

*Predoctoral training which leads to the  
combined MD/PhD and other dual  
Clinical/Research degrees.*

**Ruth L. Kirschstein Predoctoral  
Individual National Research Service  
Award (F31)**

*Supervised research training in specified health  
and health-related areas leading toward PhD.*

**Ruth L. Kirschstein Postdoctoral  
Individual National Research Service  
Award (F32)**

*Postdoctoral research training to individuals to  
broaden their scientific background and extend  
their potential for research in specified health-  
related areas.*

**Ruth L. Kirschstein National Research  
Service Awards for Senior Fellows (F33)**

*Opportunities for experienced scientists to  
make major changes in the direction of research  
careers*

**Individual Predoctoral to Postdoctoral  
Fellow Transition Award (F99/K00)**

*Pre- to Post-doctoral transition of highly  
motivated graduate students, in conjunction  
with a K00 Award.*



# U.S. DEPARTMENT OF DEFENSE



Provides the military forces needed to deter war and to protect the security of our country.

## NOTABLE DOD AGENCIES SUPPORTING RESEARCH

- **US Army Medical Research and Materiel Command (USAMRMC)** - Responsible for medical research, development, and acquisition and medical logistics management.
- **Office of Naval Research** – Research to enable future naval power and the preservation of national security.
- **Defense Advanced Research Projects Agency (DARPA)** – Supports fundamental and applied research in a variety of areas that may lead to experimental results and reusable technology of benefit to multiple governmental and nongovernmental entities.
- **Air Force Research Laboratory** - Funds research within AFRL, universities, and industry laboratories to support USAF needs.
- **Air Force Office of Scientific Research** - Supports basic research efforts for the Air Force in relevant scientific areas.
- **Congressionally Directed Medical Research Programs (CDMRP)** - Manages Congressional Special Interest Medical Research Programs (CSI) encompassing breast, prostate, and ovarian cancers, neurofibromatosis, military health, and other specified areas.

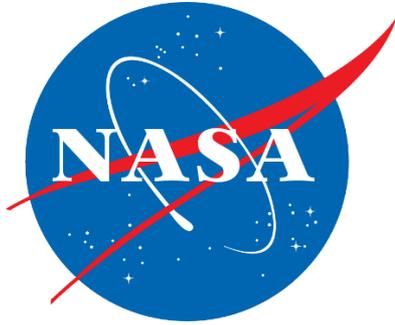
# DOD NDSEG FELLOWSHIP PROGRAM



## DoD National Defense Science and Engineering Graduate (NDSEG) Fellowship Program

- Joint program of the United States Army, Navy and Air Force within the University Research Initiative (URI).
- Designed to increase the number of U.S. citizens trained in disciplines of science/engineering important to defense goals.
- Approximately 100-150 new three-year graduate fellowships each year to individuals for study and research leading to doctoral degrees in specified fields.

# NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

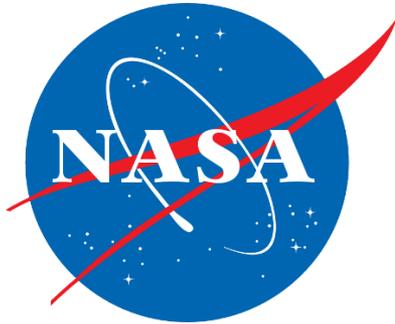


Oversees U.S.  
space exploration  
and aeronautics  
research.

## NOTABLE NASA PROGRAMS

- **Minority University Research and Education Project (MUREP) Aerospace Academy (MAA)** - Support to MSIs to recruit and retain underrepresented and underserved students, including women and girls, and persons with disabilities, into STEM fields.
- **Early Career Faculty (ECF)** – Supporting outstanding faculty researchers early in their careers.
- **Early Stage Innovations (ESI)** – Supporting research to accelerate the development of groundbreaking, high-risk/high-payoff space technologies to support the future space science and exploration needs

# NASA FELLOWSHIP ACTIVITY



## NASA Fellowship Activity

- Institutional award towards the **development and training of graduate researchers.**
- Supports **independently conceived research** or senior designed projects by highly qualified graduate students.
- Focused on **innovation and the generation of measurable research results**, which contribute to NASA's current and future science and technology goals.

# U.S. DEPARTMENT OF EDUCATION



Promotes student achievement and preparation for global competitiveness by fostering educational excellence and ensuring equal access.

## Grantmaking Units:

- **Institute of Education Sciences (IES)**
- Office of Elementary and Secondary Education
- Office of Innovation and Improvement
- Office of Postsecondary Education
- Office of Special Education and Rehabilitative Services
- Office of Career, Technical and Adult Education
- Office of English Language Acquisition

# IES FELLOWSHIPS



## Predocctoral Interdisciplinary Research Training Programs in the Education Sciences

- Seeks to increase the number of well-trained PhD students **prepared to conduct rigorous and relevant education research.**
- Awarded to institutions that **create cohesive graduate training programs** in which fellows receive training in conducting education research while earning their doctorates within a traditional academic discipline.
- Fellows are **trained to develop education interventions** (e.g., curricula, professional development) that are grounded in a science of learning

# NATIONAL ENDOWMENT FOR THE ARTS

- Independent federal agency giving Americans the opportunity to **participate in the arts**, exercise their imaginations, and develop their creative capacities.
- **Supports arts learning**, affirms and celebrates America's rich and diverse **cultural heritage**, and extends its work to promote equal **access to the arts** in every community across America.



**National  
Endowment  
for the Arts**  
arts.gov

# NATIONAL ENDOWMENT FOR THE HUMANITIES

- Supports cultural institutions, such as museums, archives, libraries, colleges, universities, public television, and radio stations, and individual scholars.
- Projects that:
  - **strengthen teaching and learning** in schools and colleges
  - **facilitate research** and original scholarship
  - provide opportunities for **lifelong learning**
  - **preserve** and provide access to cultural and educational resources
  - strengthen the institutional base of the humanities



# NEA AND NEH FELLOWSHIPS



National  
Endowment  
for the Arts  
arts.gov

## Creative Writing Fellowships

Fellowships in fiction, poetry, and creative nonfiction enable recipients to set aside time for writing, research, travel, and general career advancement.

## Translation Projects

Enable recipients to translate work from other languages into English.



## Fellowships

- Competitive awards to individual scholars pursuing projects that embody exceptional research, rigorous analysis, and clear writing.
- Provide time to conduct research or to produce books, monographs, peer-reviewed articles, e-books, digital materials, translations with annotations or a critical apparatus, or critical editions resulting from previous research.

# PRIVATE GRANTSEEKING

# PRIVATE GRANTMAKING

## WHAT IS A FOUNDATION?

A foundation is a non-governmental entity that is established as a nonprofit corporation or a charitable trust, with a principal purpose of making grants to unrelated organizations, institutions, or individuals for scientific, educational, cultural, religious, or other charitable purposes.

(SOURCE: [FOUNDATIONCENTER](#))



Alfred P. Sloan  
FOUNDATION

BILL &  
MELINDA  
GATES  
*foundation*



W.K.  
KELLOGG  
FOUNDATION



FORD  
FOUNDATION

## KEY FOUNDATION STATS

**87,142**

TOTAL NUMBER OF  
FOUNDATIONS

**\$55.26 Billion**

TOTAL AMOUNT OF GIVING

**\$798.18 Billion**

TOTAL FOUNDATION ASSETS

(SOURCE: [FOUNDATIONCENTER](#), 2012)

# FOUNDATION DIVERSITY

*FOUNDATIONS  
ARE NOT LIKE  
ONE ANOTHER*

## *WHAT DO FOUNDATIONS HAVE IN COMMON?*

- ✓ They have money.
- ✓ They are required to give some away.

## *WHAT DO FOUNDATIONS NOT HAVE IN COMMON?*

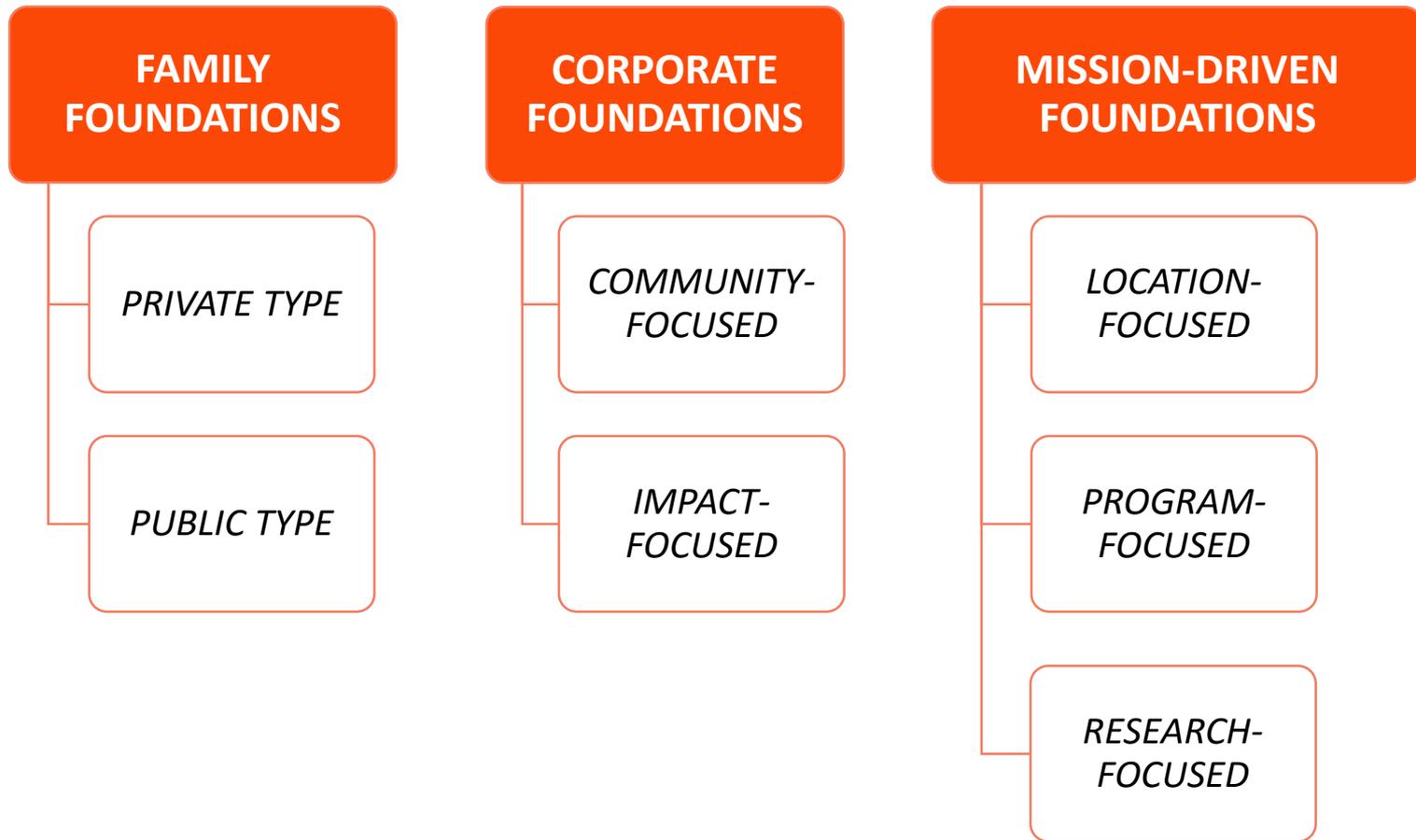
- ✗ How much money they have.
- ✗ How much they give.
- ✗ To whom they give.
- ✗ How they decide to give.

# FOUNDATION PERSONALITIES

Foundations are **like people**, and therefore must be cultivated like people. They both:

- Have personalities and quirks
- Have preferences and opinions
- May not be logical
- May say one thing and do another
- Are liable to change without warning
- **Are more likely to give money to people and organizations they know**

# FOUNDATION TYPE WILL INFLUENCE APPROACH



# FAMILY FOUNDATIONS

Family foundations are founded and managed by a family, to advance the family's charitable interests. They:

- Are often **managed by a group of family members**, which may include the original donors and/or their descendants.
- May or **may not have a well-defined focus** or mission.
- May be **varied or inconsistent in their giving**, depending on the interests of family members involved.

# CORPORATE FOUNDATIONS

Corporate foundations are founded and managed by a business, to advance the business's charitable interests. They:

- Always have a **focus on advancing the business's reputation**, whether or not that motivation is prominent.
- May **focus on communities** in which they work, or give nationally (or internationally) according to select priorities.
- May make **direct donations** to charitable causes as well as making **formal grants** through associated foundations.

# MISSION-DRIVEN FOUNDATIONS

Mission-driven foundations are independent organizations charged with distributing funding to support specific kinds of work.

They:

- Have **prescribed structures** within which staff and trustees work to advance the mission.
- May focus on specific **locations**, specific **fields**, specific **kinds of organizations**, or specific **kinds of projects**.
- Are more **professional and staff-driven** than other types of foundations.

# FOUNDATION FELLOWSHIP EXAMPLES

## Ford Foundation Fellowships

*Through the National Academies of Sciences, Engineering, and Medicine*

- Seeks to increase the diversity of the nation's college and university faculties
- Predoctoral, Dissertation, and Postdoctoral Awards for study in research-based Ph.D. or Sc.D. programs

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## Spencer Foundation Fellowships

*Through the National Academy of Education*

- Supports research training of promising doctoral students taking up **research relevant to the improvement of education.**
- Individuals whose dissertations show potential for bringing fresh and productive perspectives to the history, theory, analysis, or practice of formal or informal education anywhere in the world.

# NOTE ON FOUNDATIONS

## Approach foundations carefully.

Even if you find a good fit and the approach seems straightforward, it's best to understand the University's past or current relationship with a funder before reaching out.

The Office of Corporate and Foundation Relations should be able to provide guidance on the pursuit of foundation support.

**Tracy Lee**  
Interim AVP for Corporate and Foundation Relations  
tracylee@umd.edu

# IDENTIFYING PROSPECTS

# PROSPECTING: WHO WILL FUND YOUR WORK?

*Prospecting is the art of matching projects with likely funders.*

## GOOD PROSPECTIVE FUNDERS HAVE:

- ✓ A mission that aligns with your mission
- ✓ A history of funding similar or related projects
- ✓ Stated priorities that encompass your project area
- ✓ No restrictions that would preclude funding your project

# WHO IS FUNDING SIMILAR WORK?

*Funders' giving history and stated priorities provide a means for identifying prospects.*

- Use multiple **databases** and search tools.
- Search for **keywords** that relate to your mission and project.
- Search by funder type, funding type, and funding region.
- Note funding **restrictions**.
- Note typical funding **amounts**.
- Note key **deadlines** and other timing constraints.

# WHAT KINDS OF PROJECTS ARE FUNDABLE?

- Some ideas and funding needs are **not realistic candidates for external grants**. Common challenges:
  - General support
  - Equipment grants with no programmatic tie-in
  - “Planning”
- Take note **of what types of projects actually get grant funding** – and at what levels.
  - Different levels of funding for different types and stages of work.
- Don't **waste time** searching for prospects that don't exist.

# TYPES OF PROSPECTING RESOURCES

- **Federal Funding Databases** contain information on past, current, and future funding opportunities, in addition to information on funded projects.
- **Funder Award Databases** provide detail on the projects supported by a grantmaker.
- **Funder Websites** contain background on active programs, giving interests, past giving, and guidelines for proposals.
- **Foundation Databases** catalog past foundation grant awards and provide funder background information

# FEDERAL DATABASES

*Government grants databases provide **vast datasets** on federal giving history and grant competition announcements*

- Put search terms in “quotes.”
- Check off **closed and/or expired opportunities** in your search. (Grants.gov)
- **Export the raw data** and reduce it to key data points.

# USASPENDING.GOV

*USAspending.gov houses a massive database with information on US-funded grants*



**ATTENTION:** In the fall of 2017, we will release a new version of USAspending.gov. The new site will continue to provide data on federal awards as well as include data on agency expenditures. Please note that in advance of that transition, financial assistance awards, such as grants and loans, are now being updated on [beta.usaspending.gov](http://beta.usaspending.gov) only. Please visit the new site and give us your feedback at [Contact Us](#) or join the [Community](#).

HOME
ABOUT
WHERE IS THE MONEY GOING
REFERENCES
DOWNLOAD CENTER
CONTACT US

[USAspending](#) > Advanced Data Search

## ADVANCED DATA SEARCH

Fiscal Year and Spending Type are required selections; you may select multiple filters in every category. Search results display up to 1,000,000 transactions. The downloaded zip file contains spreadsheets for each Spending Type selected. Sub-award data for all Spending Types is in a sep; In the Search Results, click on Recipient Name to go to the Recipient Profile; click on the Award ID to see the Award Summary; click on header to so

+ [SEARCH CRITERIA](#)

### RESULTS SUMMARY

Filters: "water quality"; Grants; FY 2018, FY 2017, FY 2016, FY 2015, FY 2014, FY 2013, FY 2012, FY 2011, FY 2010, FY 2009, FY 2008

<b>Total Number of <a href="#">Transactions</a></b> <span style="font-size: 24pt; font-weight: bold;">8,087</span>	<b>Total Prime Recipient Transaction Amount</b> <span style="font-size: 24pt; font-weight: bold;">\$3,725,404,712</span>	<b>Total Sub-Aw</b> <span style="font-size: 24pt; font-weight: bold;">\$1,6</span>
<span style="font-size: 24pt; font-weight: bold;">0</span> <b>Contracts</b>	<span style="font-size: 24pt; font-weight: bold;">8,087</span> <b>Grants</b>	<span style="font-size: 24pt; font-weight: bold;">0</span> <b>Loans</b>

### SEARCH RESULTS

««
1
2
3
4
5
»
»»
1 to 50 of 8,087 transactions.

Recipient ▲	Award ID †	Award Amount †	Award Date †	Award Type †	Awarding Agency †
1854 Authority	00E00425	\$85,375	12/19/2012	Grants	Environmental Protection Agency
					Environmental Protection

*Grants.gov is a key resource for learning about grant competitions*

The screenshot shows the Grants.gov search results page. The search criteria include the keyword "mathematics". The results are sorted by Relevance (Descending) and show 72 matching results. The table below displays the first 10 results.

Opportunity Number	Opportunity Title	Agency	Opportunity Status	Posted Date	Close Date
<a href="#">PD-16-1266</a>	Applied Mathematics	NSF	Posted	09/27/2016	11/15/2018
<a href="#">17-527</a>	NSF Scholarships in Science, Technology, Engineering, and Mathematics Program	NSF	Posted	12/03/2016	03/28/2018
<a href="#">N00014-18-S-F003</a>	FY18 Funding Opportunity Announcement (FOA) for the Office of Naval Research (ONR) Navy and Marine Corps Science, Technology, Engineering & Mathematics (STEM), Education and Workforce Program	DOD-ONR	Posted	11/16/2017	09/28/2018
<a href="#">AID-263-14-000005</a>	US-Egypt Learning Program	USAID-EGY	Posted	03/25/2014	
<a href="#">N00014-17-S-F015</a>	FY2018 VANNEVAR BUSH FACULTY FELLOWSHIP	DOD-ONR	Posted	06/14/2017	01/08/2018
<a href="#">17-541</a>	Robert Noyce Teacher Scholarship Program	NSF	Posted	02/10/2017	08/28/2018
<a href="#">PD-12-8084</a>	Computational and Data-Enabled Science and Engineering	NSF	Posted	07/17/2012	12/11/2017
<a href="#">PD-16-8069</a>	Computational and Data-Enabled Science and Engineering in Mathematical and Statistical Sciences	NSF	Posted	10/05/2016	12/11/2017
<a href="#">PD-16-1281</a>	Analysis	NSF	Posted	01/30/2016	10/02/2018
<a href="#">N00014-17-S-F017</a>	FY2018 Historically Black Colleges and Universities/Minority Institutions (HBCU/MI) Program	DOD-ONR	Posted	09/28/2017	03/16/2018

# FUNDER-CURATED AWARD DATABASES

*Funder-maintained grant databases are almost always **more detailed and current** than external sources tracking grants.*

## TIPS

- **Not all federal agencies** maintain their user-friendly award databases.
- **Large national foundations** are more likely to maintain their own giving databases than small foundations.

# AWARD DATABASES: NSF

**National Science Foundation**  
WHERE DISCOVERIES BEGIN

SEARCH

HOME | RESEARCH AREAS | FUNDING | AWARDS | DOCUMENT LIBRARY | NEWS | ABOUT NSF

Simple Search | Advanced Search | Popular Searches | Download Awards | Send Comments | Award Search Help

### Simple Search Results

Search award for: "water quality" [Search](#)

Export up to 3,000 Awards: [CSV](#) | [XML](#) | [Excel](#) | [Text](#)

Sort By: [Relevance](#) Results size: [30 per page](#) [Table](#) | [List](#) [Customize Columns](#)

Click on column header to sort (except Programs, Co-Principal Investigator and Awarded Amount to Date)

Award Number	Title	NSF Organization	Programs	Start Date
1151458	CAREER: Water Quality and Climate Change Adaptation to Extreme Precipitation Events	BCS	GEOGRAPHY AND SPATIAL SCIENCES , EPSCoR Co-Funding	07/01/2012
1743412	EAGER: CITIZEN SCIENCE BASED WATER QUALITY MONITORING IN UTAH LAKE	CBET	SPECIAL INITIATIVES	09/01/2017
1360286	WSC-Category 1 Collaborative Proposal: Coupled Multi-scale Economic, Hydrologic, and Estuarine Modeling to Assess Impacts of Climate Change on Water Quality Management	CBET	CR-Water Sustainability & Clim	07/01/2014
1360285	WSC-Category 1 Collaborative Proposal: Coupled Multi-scale Economic, Hydrologic, and Estuarine Modeling to Assess Impacts of Climate Change on Water Quality Management	CBET	CR-Water Sustainability & Clim	07/01/2014

**You Searched For:**  
"water quality"  
**Active Awards** true

**Refined by**  
Refine Search

**State**  
Alaska(1)  
Alabama(4)  
Arkansas(3)  
Arizona(11)  
California(31)  
[Show More ...](#)

**NSF Organization**  
Office Of The Director(20)  
Direct For Mathematical & Physical Scien(19)  
Direct For Social, Behav & Economic Scie(18)  
Direct For Computer & Info Scie & Enginr(9)  
Directorate For Geosciences(124)  
Directorate For Engineering(127)  
Direct For Biological Sciences(96)

# AWARD DATABASES: NSF TIPS

- Search by **general keywords** to cast wide net.
- Search by **program name** to find example grants for targeted program
- Look for the **most recent examples**.
- Use **“Table” view** to observe patterns.

# AWARD DATABASES: NIH

**Research Portfolio Online Reporting Tools  
(RePORT)**

Search

[HOME](#) | [ABOUT RePORT](#) | [FAQs](#) | [GLOSSARY](#) | [CONTACT US](#)

---

**QUICK LINKS**   **RESEARCH**   **ORGANIZATIONS**   **WORKFORCE**   **FUNDING**   **REPORTS**   **LINKS & DATA**

---

[Home](#) > [RePORTER](#) > Query Form

 [Login](#) | [Register](#) | [RePORTER Manual](#)   System Health: GREEN

 **NIH RePORTER**  
Version: 7.40.0

[About RePORTER DATA](#)   [FAQ](#)   [ExPORTER](#)   [RSS of Newly Added Projects](#)

**FIND PROGRAM OFFICIALS OR SIMILAR PROJECTS**

---

**QUERY**   **BROWSE NIH**   **MATCHMAKER**   **SEARCH PUBLICATIONS** BETA

---

Fiscal Year (FY):    
Current FY is 2019

---

**RESEARCHER AND ORGANIZATION**

Principal Investigator (PI) / Project Leader:    
(Last Name, First Name)   Use '%' for wildcard in PI names  
[Enter several PI/Project Leader names OR PI Profile IDs](#)

Organization:    
Please enter at least 3 characters to use Lookup.  
 Contains    Begins with    Exact

Department Type:

Organization Type:

City:   
Use '%' for wildcard

State:

Country:

Congressional District:

DUNS Number:

---

**TEXT SEARCH**

Text Search (Logic):

[And](#)  
 [Or](#)  
 [Advanced](#)

Search in  Projects    Publications    News

Limit Project search to  
 Project Title    Project Terms    Project Abstracts

Limit Publication search to  
Start Year:    End Year:

Characters left: 2500

# AWARD DATABASES: NIH TIPS

- Search by **keyword** to find programs/institutes.
- Search by **institute** to find examples of funded projects.
- Use **Matchmaker** to find similar projects and program officials.
- Observe which **funding mechanisms** are most common (R03, K01, U54, etc.).

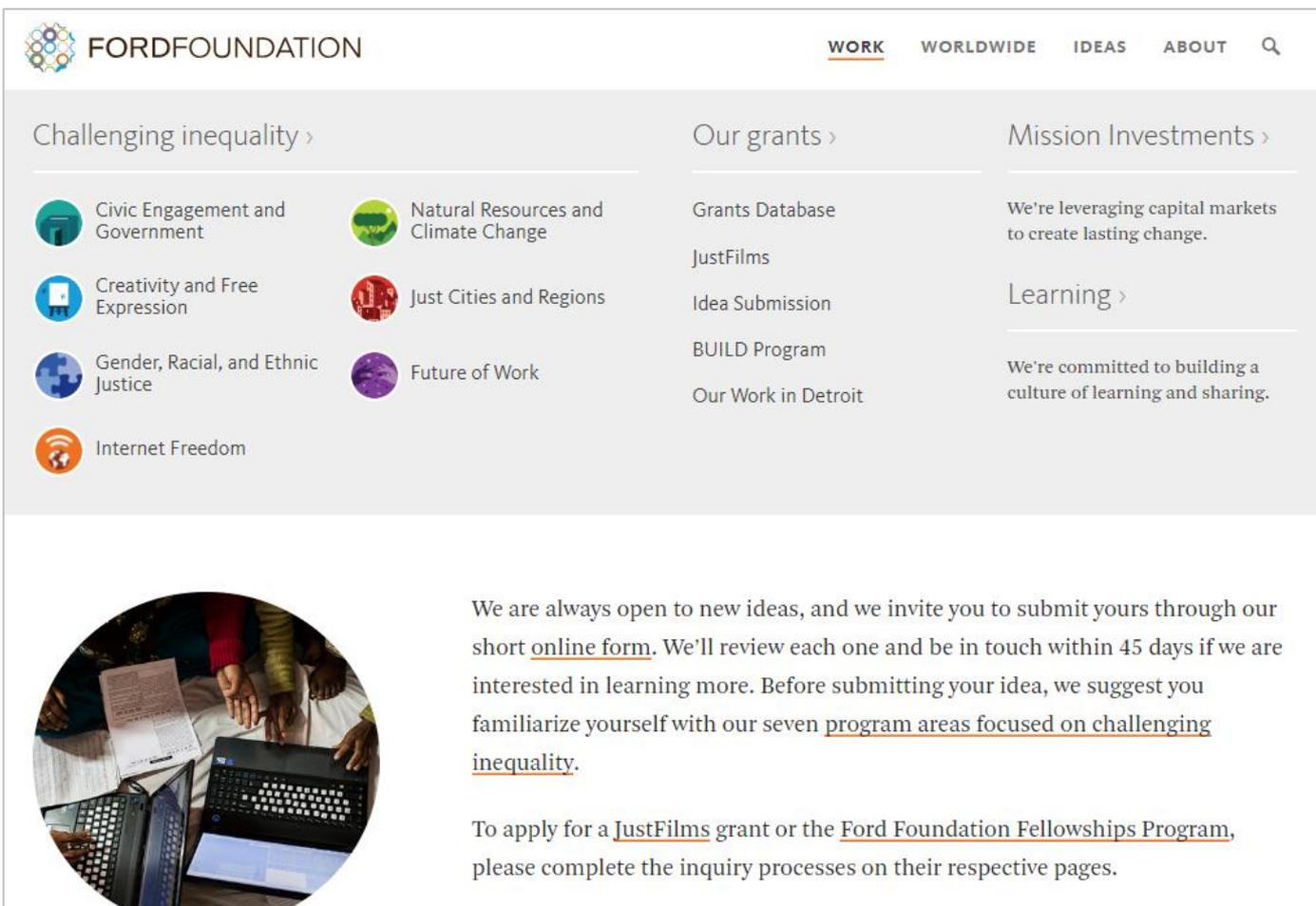
# FUNDER WEBSITES

*Outside of direct contact with funders, their **websites are the best resources** for up-to-date information.*

## TIPS

- Look for the **most recent grant examples** on funder websites.
- Get a feel for the **mission** of the funder.
- Learn the **character and quirks** of the funder.

# FUNDER WEBSITES



The screenshot shows the Ford Foundation website with the following elements:

- Logo:** FORDFOUNDATION
- Navigation:** WORK, WORLDWIDE, IDEAS, ABOUT, and a search icon.
- Challenging inequality >**
  - Civic Engagement and Government
  - Natural Resources and Climate Change
  - Creativity and Free Expression
  - Just Cities and Regions
  - Gender, Racial, and Ethnic Justice
  - Future of Work
  - Internet Freedom
- Our grants >**
  - Grants Database
  - JustFilms
  - Idea Submission
  - BUILD Program
  - Our Work in Detroit
- Mission Investments >**
  - We're leveraging capital markets to create lasting change.
  - Learning >
  - We're committed to building a culture of learning and sharing.

**Text Content:**

We are always open to new ideas, and we invite you to submit yours through our short [online form](#). We'll review each one and be in touch within 45 days if we are interested in learning more. Before submitting your idea, we suggest you familiarize yourself with our seven [program areas focused on challenging inequality](#).

To apply for a [JustFilms](#) grant or the [Ford Foundation Fellowships Program](#), please complete the inquiry processes on their respective pages.

# FOUNDATION DATABASES

Foundation grant databases **catalog the grants awarded by foundations** and collect background info on funders.

## TIPS

- Focus first on a grantmaking history.
- Look for as many indicators as you can find of a good fit.
- “Recent” award data is not always reflective of current funder priorities.

# FOUNDATION DIRECTORY ONLINE

*Foundation Directory Online has a flexible and powerful search interface.*

**FOUNDATION DIRECTORY**  
O N L I N E  
*Professional*

A service of the  
FOUNDATION CENTER

[Power Search](#)   [Search Grantmakers](#)   [Search Companies](#)   [Search Grants](#)   [Search 990s](#)

---

**Fields of Interest**

Type here to filter the list

**A B C D E F G H I J K L M N O P Q R**  
**S T U V W X Y Z**

- Abuse prevention (866)
- Academic libraries (40)
- Academics (33562)
- Activists (31)
- Adaptive sports (103)
- Addiction services (798)
- Adolescent parenting (50)
- Adolescent parents (7)
- Adolescents (5365)
- Adoption (253)
- Adult and child mentoring (290)
- Adult day care (80)
- Adult education (487)
- Adult literacy (149)
- Adult numeracy (4)
- Adults (3276)

**Search Grantmakers**   [Saved Searches](#)   [Last Search](#)

**Grantmaker Name** view index

**EIN**

**Grantmaker Location** More location options

**Fields of Interest** view index

**Support Strategy** view index

**Transaction Type** view index

**Geographic Focus** view index

# EVALUATING OPPORTUNITIES

# GATHER PROSPECT INFORMATION

*Keep notes in a list, spreadsheet, or database for further analysis.*

- ✓ Funder type and mission
- ✓ Eligibility restrictions
- ✓ Allowable costs/activities
- ✓ Award information
- ✓ Relevant grantmaking history
- ✓ Key Contacts, Staff and Trustee names and profiles
- ✓ Funding process (e.g., eligibility, timing, amounts, requirements)
- ✓ Indicators of competitiveness
- ✓ Opportunities for connection and communication

# WHAT MAKES A GOOD **GOV'T** PROSPECT?

- Does the program **align with the goals** of my project?
- Does the program **support activities** I plan to pursue in my project?
- Does the program grant **enough funding** to support my project?
- Is there **evidence of past support** to projects similar to mine?
- Is the opportunity well-suited to the **stage of my research**?
- Has the **program officer confirmed alignment** with the program's goals?

# WHAT MAKES A GOOD **PRIVATE** PROSPECT?

- Are your mission and the funder's mission **well-aligned**?
- What is the long-term **potential of the relationship**?
- How **challenging** will it be to develop a relationship with the funder?
- Is there **evidence of past support** to projects similar to mine?
- Are there **existing connections** I can leverage through my colleagues or through my institution to cultivate a relationship of my own?

# WHO IS THE IDEAL GRANTEE?

*Gain an understanding of the ideal grantee from the funder's perspective and do everything you can to match that profile.*

- Who is your **competition**?
- In a **perfect world**, which organizations does the funder want to support?
- What **resources, history, expertise, partnerships, and strategic positioning** does the ideal grantee have?
- What **distinguishes your organization** as an exceptional candidate against the field?

# CAST A WIDE NET

*A single funder often won't support a whole project or initiative in perpetuity.*

- Understand the **different components** of your project and how each could be positioned towards different funders.
  - Giving priorities
  - Allowable activities
  - Grant amounts
- Demonstrating **wide support** for a project is a selling point to prospects.
- Show funders you're already thinking of what to do when they're **out of the picture**.

# EXERCISE: FUNDING SEARCH



1. *Use web search and/or prospecting tools to select one federal program relevant to your interests.*
2. *Within this program identify one or more examples of funded projects/individuals similar or relevant to your interests.*
3. *Confirm key dates and deadlines associated with the program you've selected.*
4. *Identify the program officer to contact and any guidelines regarding how to engage with program staff.*

A black and white photograph of a desk. In the center is a hand-drawn sketch of a lightbulb. The bulb's base is shaded with horizontal lines, and the filament is drawn with several vertical lines. The bulb's glass part is a simple circle. Inside the circle, there is a piece of crumpled paper. Surrounding the lightbulb sketch are several other pieces of crumpled paper. In the top left corner, a pencil lies diagonally. In the bottom left corner, the spiral binding of a notebook is visible. The background is a wooden desk surface.

# GOOD IDEAS VS. FUNDABLE PROPOSALS

# GOOD VS. FUNDABLE IDEAS

## A GOOD IDEA

- *Helps someone*
- *Advances an important agenda*
- *Serves a wise/substantial purpose*
- *Creates interest*
- *Involves growth or learning*
  
- *Can have undefined steps or processes*
- *Builds something of value*
  
- *Can be of any scale*
  
- *Can be a one-time effort*

## A FUNDABLE IDEA

- *Addresses funder's target audience*
- *Advances funder's agenda*
- *Has "significance"*
- *Aligns with institutional priorities*
- *Measures/Analyzes/Evaluate objectives and impacts*
- *Solid, well-articulated methodology and approach*
- *Is innovative/adds to body of knowledge/advances the field*
  
- *Is scaled by prior experience and to the budget*
  
- *Should be replicable*

# GENERATING GOOD IDEAS

# PROBLEMS, PROBLEMS EVERYWHERE



- Narrow scientific/research problems
- Platform problems (requiring enabling tech)
- Regional workforce problems
- Capacity/Infrastructure problems
- Information/Visibility/Assessment problems
- Discipline-specific teaching problems
- Population-specific progress problems
- Etc.

# PICK A SOLUTION

- Build expertise/experience
- Apply content/methodological interest
- Test existing approach in a new context
- Leverage partner expertise/experience



# IS MY IDEA BAD, GOOD, OR FUNDABLE?

- Positive preliminary data
- Novelty
- Low cost
- Institutional/external financial support
- Existing partnerships
- Sustainability
- Meaningful outcomes

*Project outcomes are grantmakers' ROI.*

# SET THE STAGE: KNOW YOUR FIELD

## *How does your work relate to other work in the field?*

- What **gap in knowledge** or services will this work fill?
- Does this work **build on previous work**? Which work?
- Does this work **solve a fundamental challenge** facing the field?
- Does this work **duplicate other work**?
- How does this work **relate to other work** currently in process?
- How will this work **contribute to the field** in the short and long term?
- Is this work **a priority** for the field?

# DESIGNING STRONG PROJECTS

# WHAT IS PROJECT DESIGN?

***“Project Design”  
refers to the  
structure of a  
grant project.***

*Project Design includes:*

- Who
- What
- When
- Where
- Why
- How
- ...and how those elements work together to accomplish your goal.

# PROJECT DESIGN VS. PROGRAM DESIGN

*“Project Design” is not the same thing as “Program Design.”*

*Grants usually fund projects that are:*

- **Discrete**, with activities that are separable from the applicant’s other work
- **Time-bound**, with specific start and end dates
- **Concrete**, with specific and measurable products and impact

# COMPETITIVE PROJECT DESIGN

***A strong design makes a project competitive.***

*Strong project design is:*

- **Clear**, with all elements delineated
- **Logical**, with sensible and well-defined processes
- **Impact-oriented**, with all elements working together to produce results

***A strong project design convinces the reader that the project is both “do-able” and worth doing.***

# THE PROJECT DESIGN PROCESS

*Use a step-by-step process for a well-designed project.*

1. Understand the **funder's mission and requirements**.
2. Articulate **specific outcomes** / impact goals that align with the funder's mission and requirements.
3. Build the **project logic model** based on outcomes / impact goals.
4. Confirm the practicability of the project **using a budget**.
5. Design the **project evaluation**.

**An “outcomes-based” design process will ensure a strong Project Design.**

# FUNDER'S REQUIREMENTS

*To understand the funder, start by carefully reviewing their materials.*

## REVIEW:

- Grantmaker guidance
- Specific grant solicitation
- Funded grants (if possible)
- Previous review comments (if possible)

## NOTE:

- Grantmaker intentions and priorities
- Specific requirements

# DIVING INTO PROJECT DESIGN

*To begin Project Design, articulate mission alignment and outcome goals.*

*To understand mission alignment with the funder, ask:*

- What do I want to accomplish with funding?
- What does the funder want to accomplish?
- Where do my mission and the funder's mission overlap?

*To articulate outcome goals, ask:*

- What specific outcomes are highest priority for me and for the funder?
- What can I accomplish, given the funder's requirements?

**Articulate concrete, measurable outcomes / impact goals.**

# USE OUTCOMES TO DRIVE DESIGN

*Build a concrete logic model beginning with outcomes / impact goals.*

- **What impact** do you want your project to have?
- Given the impact you want to have, **what results** will you need?
- **What activities** will create those results?
- **What resources** will you need to conduct those activities?



Resources	Activities	Results	Impact

# BUILD A LOGIC MODEL

INPUTS → ACTIVITIES → OUTPUTS → OUTCOMES

*Resources  
invested in  
the project*

Personnel,  
Partners,  
Funding,  
Facilities, etc.

*Actions the  
project will  
perform*

Recruitment,  
Training,  
Marketing,  
Evaluation, etc.

*Expected  
results*

Focus on  
project  
implementation

*Expected  
impact*

Focus on  
project  
effectiveness

# HOW WILL A LOGIC MODEL HELP?

- Forces you to **concisely describe approach**
- **Summarizes linkages** more simply than prose
- Emphasizes **research basis** for project
- Narrows focus on **meaningful outcomes**

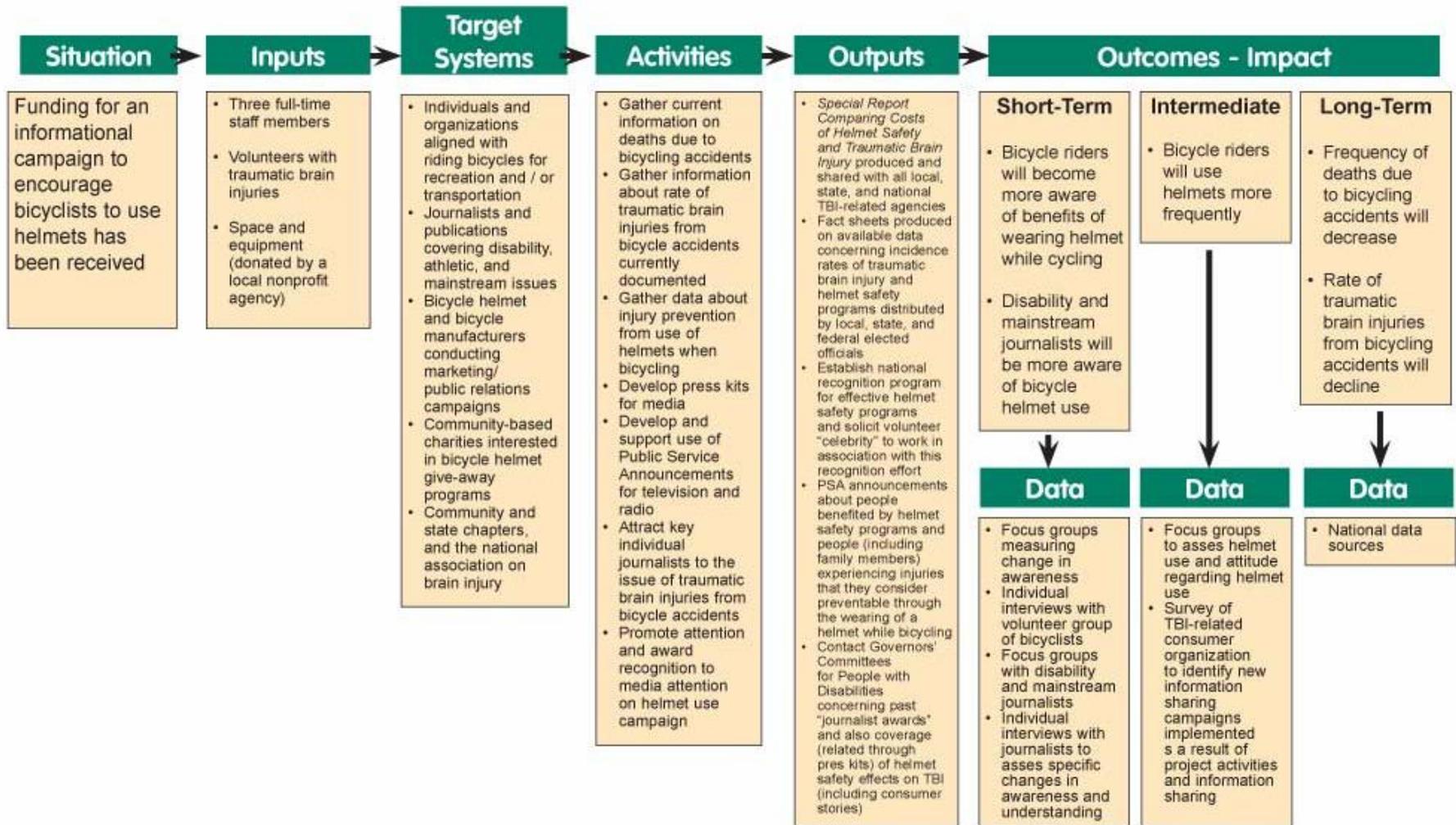
# SAMPLE LOGIC MODEL TABLE

Inputs/Resources	Outputs		Outcomes -- Impact		
	Activities	Products	Short	Medium	Long

**Assumptions**

**External Factors**

# EXAMPLE: BIKE HELMET AWARENESS



# SET SMART TARGETS

*Using the logic model, articulate the specific objectives of the project.*

Objectives should be SMART targets.

*SMART objective:*

By project month 12, provide 10 hours of training in lab techniques to 50 undergraduate students.

*Not-so-SMART objective:*

Train students in lab techniques.



# USE BUDGETS TO DRIVE REALISTIC DESIGN

*To ensure project design is realistic, draft a budget early in the process.*

1. Begin by determining the **total funding available** from all sources.
2. Next, identify **budget restrictions** and requirements.
3. Use totals and restrictions to **draft a basic line item budget.**
4. **Map the budget onto the logic model** and objectives.
5. **Adjust project design** and budget as necessary.

# EVALUATION

*Before the project design is final, design the evaluation.*

- Evaluation is how you know **whether you've succeeded**.
- Most program grants, and some research grants, require **independent evaluation**.
- An independent evaluator should be **independent of the project**, and may also need to be independent of your institution, depending on funder requirements.
- The independent evaluator should be **involved in the development of the evaluation plan at the design stage**.

*Evaluation plans should reflect activities, outputs, and outcomes in the logic model.*

# EVALUATION DESIGN

*Design the evaluation based on funder requirements and aims.*

*A thorough evaluation should include:*

- **Summative evaluation:** What did you accomplish?
- **Formative evaluation:** How did the process go?
- **Feedback mechanisms** that allow you to make course corrections based on mid-project evaluation results.

# PROGRAM EVALUATION RESOURCES

- The Center for Advancement of Informal Science Education (CAISE) maintains a list of [evaluation planning resources](#).
- The Institute of Museum and Library Services also provides a list of [evaluation resources](#).
- The US Department of Education Institute for Education Sciences (IES) maintains the [What Works Clearinghouse](#), which includes specific standards that apply to many DoE-funded grant evaluations.
- The National Organization for Research Development Professionals (NORDP) maintains a [list of program evaluators](#).
- The American Evaluation Association maintains a [database of member evaluators](#).

# DEVELOP A CONCEPT PAPER

*Many funders specify Concept Paper (or Letter of Inquiry) parameters, but in lieu of specific direction:*

- **Executive Summary**
  - Org/PI, Project Title, Amount, Term, Alignment
- **Problem/Need**
- **Project Description**
- **Expected Impact/Outcomes**
  - Alignment with Funder Aims
  - Sustainability or Next Stage Impact
- **Management Plan**
  - Personnel, Resources & Timeline
  - Experience with Similar Successful Projects
- **Budget/Amount Requested**
- **Conclusion**

# CONSULT A PROGRAM OFFICER

1. Develop a one-page Concept Paper (more detail = better)
2. Make contact early to show preparedness / seriousness
3. Request a consultation
4. Ask great questions, and take copious notes!



# EFFECTIVE PROPOSAL DEVELOPMENT

# REVIEW GRANTMAKER MATERIALS

*Start by carefully reviewing all grantmaker materials.*

## REVIEW:

- Grantmaker guidance (e.g., NSF Grant Proposal Guide)
- Solicitation
- Funded grants (if possible)

## CONFIRM:

- Eligibility
- Deadlines
- Submission process and method

# REVIEW MATERIALS: SOLICITATION

*The grant solicitation gives information on the requirements associated with the particular grant program.*

*Most solicitations contain:*

- **Goals:** Mission and objectives of the grantmaker with regard to the competition.
- **Background:** How the grant program was developed; links to other programs.
- **Award Information:** Number and amount of planned grant awards.
- **Eligibility:** Specific individuals and entities that may apply for the grant.
- **Timing:** Key deadlines and timelines for submission and review.
- **Program Requirements:** What applicants must propose to do.
- **Selection Criteria:** What the grantmaker is looking for in a proposal.
- **Review Process:** How the grantmaker will review and select proposals for funding.
- **Administrative Process:** How funding will be managed.

# SAMPLE RFP COMPONENTS

## NATIONAL SCIENCE FOUNDATION

- I. Introduction
- II. Program Description
- III. Award Information
- IV. Eligibility Information
- V. Proposal Preparation and Submission Instructions
- VI. NSF Proposal Processing and Review Procedures
- VII. Award Administration Information
- VIII. Agency Contacts
- IX. Other Information

## NATIONAL INSTITUTES OF HEALTH

- I. Funding Opportunity Description
- II. Award Information
- III. Eligibility Information
- IV. Application and Submission Information
- V. Application Review Information
- VI. Award Administration Information
- VII. Agency Contacts
- VIII. Other Information

## ROBERT WOOD JOHNSON FOUNDATION

- I. Background and Purpose
- II. Program Fit
- III. Approaches & Outcomes
- IV. What We're Funding
- V. Total Awards
- VI. Eligibility Criteria
- VII. Diversity Statement
- VIII. Selection Criteria
- IX. Evaluation and Monitoring
- X. Use of Grant Funds
- XI. Application Timeline
- XII. Program Direction

# TYPICAL FELLOWSHIP REQUIREMENTS



- Transcript
- Curriculum Vitae/Biosketch/Resume
- Recommendation letters
- Personal statement
- Work samples
- Research proposal

# REVIEW YOUR PROJECT DESIGN

- **After reviewing all grantmaker guidance, assess:**
  - What are the funder's aims?
  - How does your project accomplish these aims?
- **Refine your project design with funder aims, Program Officer guidance, and RFP requirements in mind.**

# MAKE A GRANT DEVELOPMENT PLAN

*Map out your strategy to develop and submit the proposal on time.*

- CREATE:**
- Checklist of all required proposal elements
  - Timeline for proposal development, including key dates
  - Narrative Outline based on the scoring rubric or key section headings

*Always allow time for derailments: plan to submit well before the deadline.*

# OUTLINE THE NARRATIVE

*Strong narratives have similar core elements:*

- Statement of the Problem
- Literature Review
- Conceptual Framework
- Hypotheses or Research Questions
- Methodology/ Strategy
- Scope of Work
- Management Plan
- Staff and Institutional Qualifications

*Each solicitation will require information to be presented in specific ways.*

# CORE QUESTIONS FOR PROPOSAL NARRATIVES

*The best proposals make the reviewers say “I wish I had thought of that!”*

- **What** do you want to do, how much will it **cost**, and how much **time** will it take?
- How does the proposed project relate to the **sponsor's interests**?
- **What difference** will the project make to your university, your students, your discipline, the state, the nation, and other stakeholders?
- What has **already been done**, and how will your project advance that work?
- How do you plan to **implement and accomplish** project goals and outcomes?
- How will the results be **evaluated**?
- **Why** should **you**, rather than someone else, be selected to do this project?

# STATEMENT OF THE PROBLEM

*Include a clear and concise statement of the purpose of the project.*

## FOR RESEARCH GRANTS:

- **Specific question(s)** to be answered
- Brief explanation of the **need** for or **significance** of the study
- Explanation of how the results will **contribute to the existing body of knowledge** and the expected results

## FOR PROGRAM GRANTS:

- Statement of need, including statistics and qualitative data

*Do not simply restate or paraphrase the RFP*

# LITERATURE REVIEW

*Convey your understanding of relevant literature and how the proposed study or project fits in context.*

- Make it comprehensive but **concise**.
- Trace the **central themes** in the literature, highlight major areas of disagreement, and reflect a critical stance toward the materials reviewed.

# CONCEPTUAL FRAMEWORK

*Identify theories or concepts that will guide the project.*

- Describe **strengths and weaknesses** of the proposed framework.
- Show understanding of the **theoretical perspective** and relevance.
- Describe how or why they suggest the **specific hypotheses** or research questions.
- Connect your conceptual framework to your **logic model**, if applicable.

# HYPOTHESES OR RESEARCH QUESTIONS

Provide clear statement(s) regarding the research hypotheses (formal or informal) and key questions/expectations.

- Explain why testing the hypotheses or answering key questions is **appropriate** for elucidating the research problems.
- Be absolutely sure that your “hypotheses” are actual hypotheses—they must be **fully testable and falsifiable**.

# METHODOLOGY/STRATEGY

Describe implementation methods.

- Proposed methodology should contain **enough detail** to indicate applicant knows what s/he is doing and allow reviewers to assess both feasibility and appropriateness to the research questions.
- Include details for **all procedures**, work, and implementation protocols.
- Describe the **instruments** that will be used for collecting data, explain why are they appropriate for this study, and provide evidence of the instruments' reliability and validity.
- Provide detailed data **analysis procedures**.

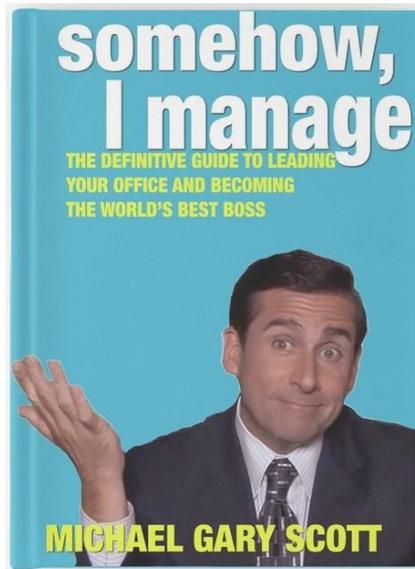
# SCOPE OF WORK

*Indicate exactly what will be done, including the sequence of the proposed activities and the anticipated outcomes and/or deliverables.*

- Specify the tasks, outcomes/deliverables, and schedule in sufficient detail.
- Include all activities necessary for completing the project.
- Provide a viable schedule for carrying out the tasks (work plan).

# MANAGEMENT PLAN

*Explain how you will manage the project.*



- Indicate who will be responsible for each work component.
- Describe how each element of the project will be coordinated.

# STAFF AND INSTITUTIONAL QUALIFICATIONS

*Explain why your staff and institution are qualified to implement the project.*

- Include discussion of the **qualifications** and experience of the proposed staff (be brief but comprehensive), including how they are qualified to conduct the project.
- List **capabilities** of the institution (applicant and/or partners).
- Where applicable, include information on **facilities and equipment**.

# REFINE THE NARRATIVE

*Your narrative should communicate your project clearly and appropriately.*



**TIPS FOR  
NARRATIVE  
DEVELOPMENT:**

- ✓ Know your audience.
- ✓ Write clearly and in an appropriate style.
- ✓ Use SMART goals.
- ✓ Provide logic models where appropriate.
- ✓ Present information in tables and figures where appropriate.
- ✓ Use skillful repetition.
- ✓ Seek feedback from peers and grant professionals.
- ✓ Refine and edit.

# EVALUATION

*Evaluation is how you—and your funder—know whether you've succeeded.*

- Most program grants, and some research grants, require independent evaluation.
- An independent evaluator should be independent of the project, and may also need to be independent of your institution, depending on funder requirements.
- The independent evaluator should be **involved in the development of the evaluation plan at the proposal stage.**

# EVALUATION ELEMENTS

A thorough evaluation should include:

- ❑ **Summative evaluation:** What did you accomplish?
- ❑ **Formative evaluation:** How did the process go?
- ❑ **Feedback mechanisms** that allow you to make course corrections based on mid-project evaluation results.

*Evaluation plans should reflect activities, outputs, and outcomes in the logic model.*

# BUDGET

## TYPICAL BUDGET LINES INCLUDE



- Personnel
- Fringe Benefits (standard rates)
- Travel
- Equipment (durable, long-lasting, costs more than \$5,000 each)
- Supplies (expendable, short-term)
- Contractual
- Construction
- Indirect Costs (note limitations)
- Other

*It is often helpful to develop the budget in a separate spreadsheet using categories that make sense internally, and only “translate” to the grantmaker’s required form after the budget is final.*

# BUDGET NARRATIVE

*The budget narrative must be consistent with the project narrative.*

**TIPS FOR  
BUDGET  
NARRATIVE  
DEVELOPMENT:**



- Show a **clear method** of calculation for each item.
- Link each item back to **grant activities** and grantmaker goals.
- Use the **same terminology** that you used in the project narrative.
- A **table** can make the information easier to digest, even in the budget narrative.
- **Be specific!**

# CREATE ATTACHMENTS

*Attachments vary by funder and solicitation, but often include:*

- Abstract / Project Summary (*Write it last!*)
- Biosketches / CVs
- Quotations or documentation for specific budget items
- Detailed project timelines
- Letters of commitment or Memoranda of Understanding
- Agency-specific documents (e.g., NSF's Current and Pending Support)

***Keep careful track of all your attachments!***

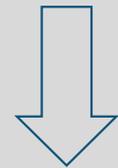
# ASSEMBLE PACKAGE AND SUBMIT

*After each element of the proposal is complete,  
assemble the final package.*

- Review the package as a whole:
  - Is it internally consistent?
  - Does it follow all funder guidelines?
  - Will a reviewer be able to find everything in the package?
  - Will a reviewer who doesn't know you, your institution, or your work need any additional information to understand your project?
- Double check to make sure the package is complete.
- Obtain internal approval for submission.
- Submit the package before the deadline date if at all possible.

# OVERALL TIPS & SUGGESTIONS

- Start the grant submission process early
- Build the *Budget* early and as you go
- Write the *Abstract/Executive Summary* last
- Less is not more
- Repetition can help to emphasize key points
- Don't be shy of talking with Program Officers
- Seek an objective review before submitting



The Graduate School Writing Center offers one-on-one consultation services.

# WHAT IF I FAIL?

*Remember that by submitting a grant you will have...*

- Practiced the process
- Established and/or deepened connections
- Developed text and material for future grants and other projects
- Designed a new project
- Put your name/ideas/work in front of disciplinary experts
- Gathered constructive criticism

# LEARN FROM THE PROCESS

*Grantseeking is a **competitive, iterative** process.*

- Many grants aren't funded on the first submission.
- Learn as much as you can from each grantseeking process.
- Reviewers' comments are very valuable: pay attention.
- A grant decline can be the opening step in funder relationship development.

# REJECTION AND RESUBMISSION

# REJECTION

- Most proposals are rejected (75-90%)
- Very few applications are funded on the first submission
- Rejection is a part of the grant-seeking process
- Rejection will allow you to join an esteemed group of colleagues!



*"I've learned not to listen to critics who are right about me."*

# REJECTION

## A REJECTION IS NOT...



- A rejection of your interests or your life's work.
- A rejection of the quality of the proposed research project or research design.



## IT'S AN OPPORTUNITY TO...



- Learn from your mistakes.
- Understand someone else's perspective (AKA *the Reviewers*) and see that they are not always wrong.
- Learn the rules of the peer review "system" and use them to your advantage.
- Cultivate your determination and develop an intentional strategy to be successful.

# REASONS FOR REJECTION



- Administrative reasons
- Poor fit
- Inadequate resources
- Failure to convey significance/merit
- Budget misalignment
- Presentation Issues

# ADMINISTRATIVE REASONS

- **You failed to meet technical requirements**
  - You used 9-point font on 20 pages!
- **Your submission was incomplete**
  - You left off the Facilities & Other Resources pages.
- **Your College isn't ineligible**
  - Applicants can only be community colleges.
- **Your budget wasn't inappropriate**
  - You asked for international travel costs but international travel isn't allowed!
- **You missed the deadline**
  - Deadline was 5:00 PM your time, upload completed at 5:02 PM

# POOR FIT

- Your proposal **did not align** with the FOA or had a focus outside of what was intended.
- The program to which you applied **may have changed focus** in the meantime.
- Organizational **funding priorities have since changed**.
- Your project was **too close** in scope, emphasis, or geography **to one or more projects already funded**.

# INADEQUATE RESOURCES

- **Experience**
  - *The PI has no track record of managing a grant.*
- **The research team lacks experience**
  - *The project needs a statistician, no one has stats experience.*
- **Staff is untrained in the practices needed to undertake the project.**
- **Division of labor is not clearly articulated.**
- **The team's publication record is inadequate or the literature review is irrelevant.**
- **Time dedicated to the project is deemed insufficient**
  - *Forgot to include start-up time.*
- **Facilities/Equipment cannot fulfill the proposed objectives.**
- **Required Letters of Commitment from partners were omitted.**

# FAILURE TO CONVEY SIGNIFICANCE/MERIT

- Diffuse, superficial or unfocused research plan
- Lacks innovation, importance of topic
- Absence of acceptable scientific rationale
- Lack of experimental detail or preliminary data
- Questionable reasoning in experimental approach
- Lack of experience in methodology or specific technique
- Inadequate methodology or evaluation plan
- Focus too narrow or too broad
- Unpopular, uncommon or unproven methodology or approach

# BUDGET MISALIGNMENT

- **The proposed budget was inappropriate**
  - Inadequate or excessive
- **Line items were not appropriately justified**
- **Funding was requested for ineligible costs or activities.**
  - *Travel and equipment are common pitfalls.*
- **Consultants are not linked to proposal activities.**

# PRESENTATION ISSUES

- The proposal **lacks graphics, timelines, or illustrations.**
- Formatting is misaligned or does not adhere to **standard format requirements.** Headings and sub-headings do not align with rating criteria or as instructed in the RFP.
- The proposal includes **typos, omissions, incorrect formulas.**
- The **writing is unclear.** Paragraphs and sentences are dense and hard to follow.
  - “Readability” is hampered by formatting or presentation of text.

# REJECTION OFTEN LEADS TO POSITIVE RESULTS

## *Resubmissions have a higher success rate*

- In 2017, the overall NIH success rate for first-time Research Project Grant submissions was only 13.0% (>38,000 applications).<sup>1</sup>
  - Compared to 30.1% for resubmissions
- In 2016, the NSF received >49,000 proposals and made nearly 12,000 awards (24% funding rate).<sup>2</sup>
  - Resubmission success rates are higher across nearly all federal agencies.



<sup>1</sup>Table 210: NIH Research Project Grants and R01-Equivalent Grants, Fiscal Years 2008-2017

<sup>2</sup>National Science Foundation, <https://www.nsf.gov/pubs/2018/nsf18021/nsf18021.pdf>

# CONSIDERATIONS *BEFORE* A REVISION

- Federal grant rejections provide the benefit of **reviewer comments.**
- **Foundation rejections typically do not** provide comments or reasons for rejection.
- Reviewer comments are not “all-inclusive.”
- Resubmission improves the likelihood of success, **but does not guarantee it.**

# WHAT DOES IT SAY?

- Were the reviews **generally positive**?
- Do the **strengths outweigh** the weaknesses?
- What **types of issues** were identified by the reviewers?
  - Why was the proposal rejected?
- Are there **consistencies among the comments**?



# REALITY OF REVIEWS

- Reviewers are **human** too.
- Reviewers may **disagree with each other**.
- A **poor panel fit** could lead to an unhelpful review of a relatively strong proposal.
- Negative reviews may **not necessarily cover all of the proposal's weaknesses**.



# IMPORTANT QUESTIONS TO ASK YOURSELF

	YES	NO
Were the reviewers right? Can you see their point?		
What did the reviewers generally agree upon? Any outlier comments?		
Were the reviewers wrong or did your proposal simply not articulate what you had hoped?		
Did the reviewers misinterpret text or an illustration?		
Did you fail to include detail that would have addressed reviewer concerns?		
Can reviewer concerns be rectified?		
Is the overall tone of the review positive? What does your “gut” tell you?		

# THEN WHAT?

- 1. Get another objective opinion.**
- 2. Contact the Program Officer.**
- 3. Reassess your time, your commitment, and the effort needed for a revision and resubmission. Ask yourself:**
  - a. Can I reasonably revise the proposal and address all identified weaknesses before the application window closes?
  - b. Do I *still* have the time/bandwidth to dedicate to the project?
  - c. Are there other considerations or changes in circumstances (e.g. change in position or teaching schedule, a successful grant award, other commitments)?
- 4. Reassess your institution's commitment to this effort.**
- 5. Decide if your project is still of interest and still relevant.**

# ANSWER ADMINISTRATIVE QUESTIONS

1. Are there a maximum number of submissions/resubmissions allowed?
2. Have I reached the resubmission limit for this particular agency?
3. Is this specific funding mechanism/RFP/program still available?
  - a. If closed, is the program expected to open again? When?
  - b. If not, what are the future deadlines?
4. Is my proposal time-sensitive?
  - a. Does the resubmission window work with my own time constraints?

**\*\*Remember: Funding occurs approximately 6-9 months from the date of resubmission for the federal sponsors.**

# ADDRESS THE FATAL FLAWS

- The proposed research is neither **important nor innovative**.
- The **hypothesis is not supported** by pilot data or others' work.
- The literature review was:
  - **incomplete,**
  - **outdated,** or
  - resulted in conclusions that were **not evidence-based**.
- The proposed research has already been completed by someone else **or replicates existing or previously completed research**.
- The proposed **methods are not suitable** for testing the stated hypothesis.

# EXERCISE: DISSECTING AN RFP

Answer the following questions about the NSF Smart and Connected Communities (S&CC) program from [the solicitation](#)

1. What is the program's primary goal?
2. Is an LOI required for the Integrative Research Grants (IRG)?
3. What are the page limits for IRG and PG project descriptions?
4. What standard activities are within the general scope of the Planning Grants (PG) track?
5. What is the budget limit and project period for an IRG Track 2 project?



# EXERCISE: DISSECTING AN RFP

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5. What is the budget limit and project period for an IRG Track 2 project?

Supports integrative research that addresses fundamental technological and social science dimensions of smart and connected communities

Yes, but they will not be reviewed for merit.

Project Descriptions for SCC-IRG proposals are limited to 15 pages in length and SCC-PG proposals are limited to 5 pages in length.

Travel, multidisciplinary workshops, stakeholder meetings, data collection, preliminary experiments, and pilots.

Track 2 is for budgets not to exceed \$1,500,000, and for up to three years of support.



# CONNECTING WITH GRANTMAKERS

# COMMUNICATING WITH FUNDERS

- Evidence suggests that **most funded proposals involve contact** with the program officers at the funding agency
- For many opportunities, it is **not worth submitting a proposal** if you have not first connected with a Program Officer.

# RESISTANCE TO RELATIONSHIP-BUILDING

*Grantseekers sometimes resist building relationships with funders.*

- It can be challenging to reach out to new people, especially for introverts.
- In most cases, relationship-building is not part of the “official” required process.

# WHY COMMUNICATING MATTERS

- Program staff **influence funding decisions**.
- Pre-proposal communication helps to **establish a relationship** with the sponsor.
- The program officer's **immediate response** to a project is a good predictor (although not a guarantee) of success/denial.

# REASONS TO CONTACT A PROGRAM OFFICER

- To confirm if a **project idea fits** with the sponsor's and the program's objectives.
- To obtain **guidance about a project's design**, collaboration, budget, and timeline.
- To **discover underlying considerations**, methodology trends, preferences, dislikes, and shifting priorities that do not appear in published material.
- To ask for **clarification** of stated guidelines or an RFP.
- To discuss ways to **strengthen the project** if a prior application was not successful.

# CONNECTING AT THE CONCEPT STAGE

*With a concept paper in hand, you are ready to connect with funders.*

Connecting with a funder at the concept stage allows you to:

- Introduce yourself, your work, and your concept.
- Solicit feedback on project alignment and funder interest.
- Verify funder priorities and preferences.
- Build your reputation with the funding agency or organization.
- Develop a long-term relationship to facilitate future funding.

# PUBLIC FUNDER OUTREACH

*Connecting with a Program Officer at a public funder (e.g., a federal agency) is a fairly straightforward process.*

Always follow the agency's preferred practice. A general guide:

- Reach out and introduce yourself via email first.
- Ask for a meeting, on the phone or in person.
- Note that some POs prefer not to meet in person.
- If the PO prefers to answer questions via email, go with that.

# OUTREACH EMAIL

## *Sample email to a Program Officer*

*Subject: Request for call to discuss XXX due on DATE*

*Dear Dr. X:*

*I am interested in submitting a proposal for RFA #XXX “RFA Title” and would like to schedule a call with you to discuss whether my research is appropriate for this opportunity. [If your request is urgent, indicate that here and explain why.]*

*[Briefly describe your proposed work and why you think it is a good fit.] If it would be helpful, I can provide a [brief concept paper / project summary / specific aims] for you to review prior to our call. [If you have specific questions that you want the PO to consider, include them here.]*

*[Provide possible days/times or indicate that you can be available at the PO’s convenience.]*

*Thank you in advance for your assistance. I look forward to talking with you soon.*

*Contact Information*

# PUBLIC FUNDER MEETING

*Always prepare questions before your meeting with a PO.*

- Is this project a **good fit** for this opportunity / your funding priorities?
- Are there **other opportunities** that would be a better fit?
- What are your **recommendations for improving** the fit / competitiveness?
- What **other recommendations** do you have?
- What are the most common causes for proposals **being declined**?
- What are the **usual success rates** for this program?
- What is your **preferred method** for me to **contact** you if I have additional questions?

# LISTEN TO THE P.O.

- Remember to spend **as much time listening as talking**: Program officers can provide very valuable feedback and guidance.
- Take the program officer's **advice to heart**—this feedback can be essential in making the proposal competitive.

# PUBLIC FUNDER FOLLOW-UP

*Always follow up after meeting with a PO, and send questions as soon as they arise in the proposal development process.*

- Follow up with an email thanking the PO.
- In any future communication about this opportunity, reference your call.
- Use the subject line of your email to reflect the purpose and urgency of the request.
- Remember that Program Officers are very busy: **make things easy for them with clear, specific, actionable communication and a courteous tone.**

# PRIVATE FUNDER CULTIVATION

*Connecting with private funders (e.g., foundations, corporations) can be a bit “stickier” than connecting with public funders, but it is no less important.*

## REMEMBER THAT PRIVATE FUNDERS:

- Are **not required to be transparent** or straightforward about their processes.
- Often **say one thing and do another.**
- Are much more likely to award funding to an individual or **entity that they know and trust.**

# CULTIVATION PLANNING

*To prepare for cultivation, assess and analyze your connections and potential connections to the target funder and its personnel, as well as opportunities for building additional connections.*

- Research **institutional history** with the funder.
- Identify **connections** to the funder, funder personnel, or people and organizations connected to the funder.
- **Gather intelligence** and/or request introductions from connections.
- Identify online and **in-person connection opportunities**.

# CULTIVATION STRATEGY

*With internal support, develop and implement a cultivation strategy for each target funder.*

1. Reach out to the funder, either through connections or “cold.”
2. Introduce yourself and your work.
3. Gather information on funder priorities and preferences.
4. Ask how you might work together.
5. Continue the conversation.

# PREPARING FOR THE CONVERSATION

## *Key Tips:*

- ❑ Be **succinct** and focus on impact.
- ❑ **Leave room** for questions and conversation.
- ❑ Approach the conversation as **sharing enthusiasm** or “geeking out” rather than convincing someone of something.

# LEARNING FROM THE CONVERSATION

## *Key Questions:*

- How did it go?
- What was most difficult?
- What was easiest?
- What did you learn?
- What do you still need to work on?
- Did you identify any good conversation “hooks” that you can use to talk about your work?

# RELATIONSHIPS DRIVE GRANTMAKING

*Even in formalized grantseeking structures, relationships are an **essential** element of the funding process.*

- A monetary award involves trust; **people trust people they know.**
- Grants are awarded in the context of **communities;** communities are built on relationships.