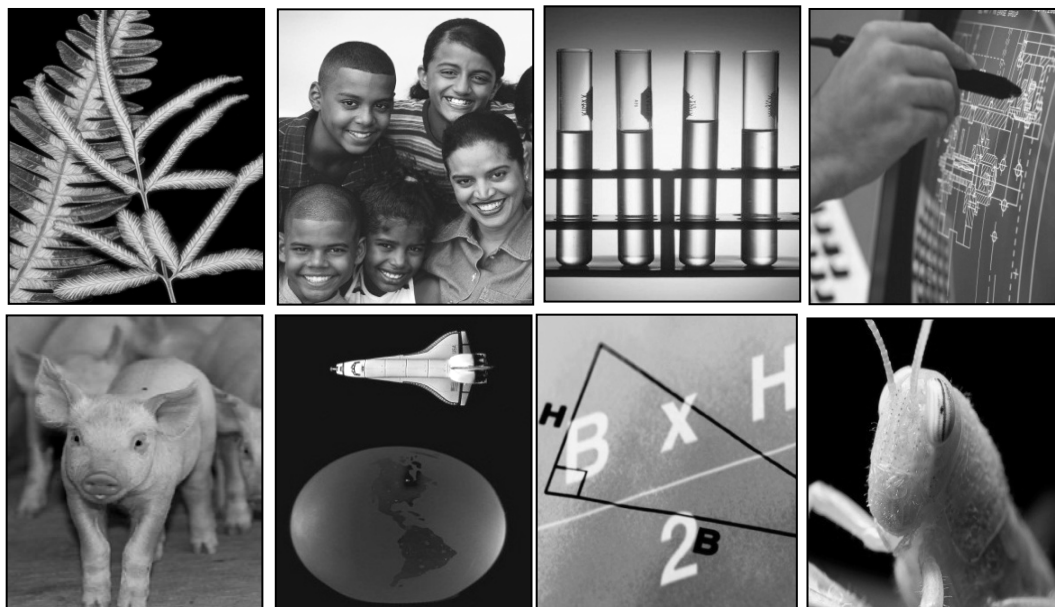


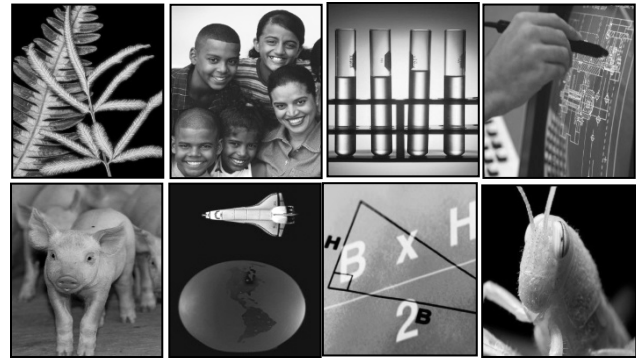
National Science Foundation's

Graduate Research Fellowship Program



Robin G. Walker, PhD
University of Missouri

Today's Topics



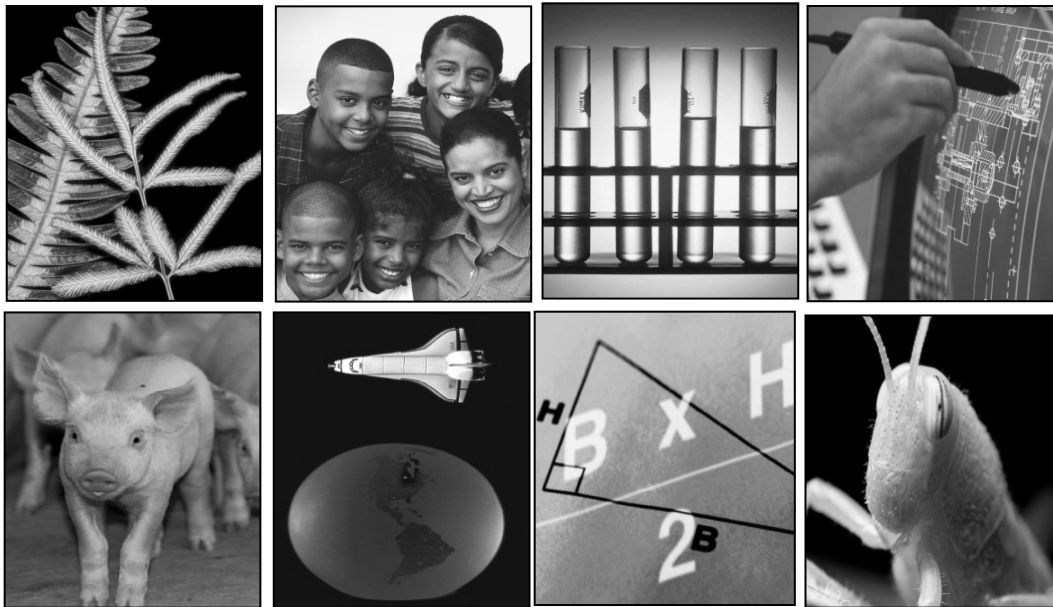
1. GRFP overview
2. Review criteria & processes
3. Boosting students' competitiveness
4. Collaboration strategies
5. Motivating students to apply
6. Q & A

One more thing...

Although today's focus is on the GRFP, other nationally-competitive fellowships look for **VERY** similar levels of achievement, leadership and service.



Part 1: GRFP Overview



National Science Foundation's GRFP Competition



GRFP Provisions



Provides 3 years of support *payable over 5 years*

Award value: \$132,000

- \$32,000 stipend per year *paid to student*
Fellowship travels with student to the US university of choice.
- \$12,000 “educational allowance” *paid to institution*
The graduate institution *must* waive tuition during the 3-year GRFP tenure.

Other opportunities for active Fellows:

- International research & internships – GROW, GRIP
Graduate Research Opportunities Worldwide; Graduate Research Internship Program
- Access to XSEDE resources
Extreme Science & Engineering Discovery Environment: www.xsede.org; Supercomputing; visualization; data sets, etc
- Supplemental funding for researchers with disabilities
Facilitation Awards for Scientists & Engineers with Disabilities

See handout



Official Solicitation

The screenshot displays the NSF website's layout. At the top left is the NSF logo. To its right is the text "National Science Foundation" and "WHERE DISCOVERIES BEGIN". On the top right is a "QUICK LINKS" button and a search bar. Below the header is a navigation bar with links: HOME, FUNDING, AWARDS, DISCOVERIES, NEWS, PUBLICATIONS, STATISTICS, ABOUT NSF, and FASTLANE. The main content area features a "Publications" sidebar on the left with links like "Search/Browse Publications" and "Obtaining Publications". The central content area is titled "Graduate Research Fellowship Program (GRFP)" and includes details about available formats (HTML, PDF, TXT), document type, document number (nsf14590), and document history. It also provides a link to the "View Program Page" and information about file formats. At the bottom of the page is another navigation bar with the same links as the top one, along with social media icons and a "Feedback" button.

Publications

Available Formats: [HTML](#) | [PDF](#) | [TXT](#)
Document Type: Program Announcements & Information [View Program Page](#)
Document Number: nsf14590

Document History: Posted: August 1, 2014. Replaces: [nsf13584](#).

For more information about file formats used on the NSF site, please see the [Plug-ins and Viewers](#) page.

Note: Verify eligibility in the official NSF solicitation.

http://www.nsf.gov/pubs/2014/nsf14590/nsf14590.htm?WT.mc_id=USNSF_25&WT.mc_ev=click

See handout



GRFP Program Goals



- 1) to select, recognize, and financially support individuals early in their careers with the demonstrated potential to be high achieving scientists and engineers, and
- 2) to broaden participation in science and engineering of underrepresented groups, including women, minorities, persons with disabilities, and veterans.

GRFP is a critical program in NSF's overall strategy to develop the globally-engaged workforce necessary to ensure the Nation's leadership in advancing science and engineering research and innovation.



GRFP Program Goals



- 1) to select, recognize, and financially support **individuals** early in their careers with the **demonstrated potential** to be **high achieving** scientists and engineers, and
- 2) to **broaden participation** in science and engineering of underrepresented groups, including **women, minorities, persons with disabilities, and veterans.**

GRFP is a critical program in NSF's overall strategy to develop the **globally-engaged** workforce necessary to ensure the **Nation's leadership in advancing** science and engineering **research and innovation.**

“Typical” Eligibility



1. Citizenship

- US citizen, US national, or permanent resident of the US

2. Degree requirements*

- will pursue a research-based graduate degree
- college senior planning to graduate by August 1, 2015
- began graduate studies fall 2013 or fall 2014 (no more than 12 months of credits)
- more than 12 months of grad credits but returning after a break of 2+ years
can have MS degree
- nearing completion of a 4 or 5 year joint BS/MS

3. Field of study*

- *Must* be an NSF-supported field

*Note: Extenuating circumstances? May still be able to apply.
Verify eligibility in the upcoming official NSF solicitation.

See handout

NSF GRFP Eligible Fields*



Engineering (18)

**Computer & Information
Science & Engineering (18)**

Chemistry (10)

Geosciences (26)

Life Sciences (19)

Mathematical Sciences (14)

Materials Research (10)

Physics & Astronomy (10)

Psychology (14)

Social Sciences (20)

STEM Ed & Learning (5)

*** Interdisciplinary applications are possible.**

(n) = number of sub-discipline fields

See handout

NOT Eligible – *in brief*



1. practice-oriented professions

- Law, medicine, dental, public health, business
- Clinical psychology or counseling, social work
- Education (except for STEM education); history (except for history of science)

2. research with disease-related goals*

- Diagnosis/treatment of physical or mental disease; behavioral studies
- Animal models for disease or drug development or testing
- EXCEPTION is bioengineering (application of engineering principles to problems in biology and medicine while advancing engineering knowledge)

*Notes: Always verify eligibility in official NSF solicitation.

See handout

Here's what typically happens



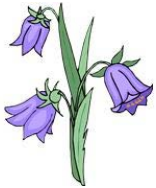
AUG: competition opens

SEP-NOV: applications received *by disciplinary* deadlines



NOV-JAN: 800+ panelists begin review process

- reviewers are disciplinary experts & educators
- required to attend orientation session
- *every* application gets 3 independent reviews
- review panels convene online



MAR: notifications


- GRFP *offers* fellowship awards
- Fellows must formally accept or decline by May 1



SUMMER - FALL: commence grad studies

Pending federal funding, the NSF GRFP cycle repeats annually

FASTLANE GRFP: <https://www.fastlane.nsf.gov/grfp/Login.do>



FastLane is an interactive real-time system used to conduct NSF business over the Internet. FastLane is for official NSF use only. [More About FastLane...](#)


www.fastlane.nsf.gov

NSF Home | News | Site Map | FastLane Help | Grants.gov Help | Contact Us

FastLane User Support (7 AM to 9 PM Eastern Time • M-F)
1-800-673-6188
FastLane Availability (recording):
1-800-437-7408

Proposals, Awards and Status | Proposal Review | Panelist Functions | Research Administration | Financial Functions

Honorary Awards | Graduate Research Fellowship Program | Postdoctoral Fellowships and Other Programs



Quick Links

- Program Solicitation
- Administrative Guide
- GRFP General Help
- Applicant Help
- Institution Directory

Graduate Research Fellowship Program

Welcome to the FastLane Graduate Research Fellowship Program (GRFP).

GRFP Award Recipients

► [Award Offers and Honorable Mentions List](#)

Applicant Deadlines

Applications Must Be Submitted by 8:00 pm Eastern Standard Time

October 29, 2014 (Wednesday): Computer and Information Science and Engineering

October 29, 2014 (Wednesday): Engineering

October 29, 2014 (Wednesday): Materials Research

October 30, 2014 (Thursday): Chemistry

October 30, 2014 (Thursday): Mathematical Sciences

October 30, 2014 (Thursday): Physics and Astronomy

November 3, 2014 (Monday): Psychology

November 3, 2014 (Monday): Social Sciences

November 3, 2014 (Monday): STEM Education and Learning

November 4, 2014 (Tuesday): Geosciences

November 4, 2014 (Tuesday): Life Sciences

Reference Submission Deadline

Reference Letters Must Be Submitted by 8:00 pm Eastern Standard Time

Reference Writers, please note: You will be provided a new login in order to submit a reference letter

November 6, 2014 (Thursday): [Submit Reference Letter](#)

Applicant and Reference Writer Assistance

Questions about the Application and Reference Writer Process for the Graduate Research Fellowship Program should be directed to:

GRF Operations Center
1818 N Street NW
Suite 600
Washington, DC 20036
Phone: 866-NSF-GRFP (866-673-4737)

[Begin a Fellowship Application](#)

[Register Here](#)

Log In Applicants and Fellows

User Name:

Privacy Act Notice

Password:

[Log In](#)

[Forgot Password?](#)

[Forgot Username?](#)

Log In GRFP Officials

Last Name:

NSF ID:

Privacy Act Notice


Password:

[Log In](#)

[Forgot Password?](#)

[Lookup NSF ID](#)

As a security measure, your GRFP session will expire after remaining idle for 30 minutes.



GRFP solicitation, deadlines, log in to apply, awards, FAQ's, etc.

What students will need to do

- ✓ Launch an “account” in FASTLANE - GRFP
- ✓ Complete personal profile (education, work, etc.)
- ✓ Enter email addresses of 3-5 references
- ✓ Upload transcript(s)
- ✓ Write 2 statements (5 pages total)
- ✓ Upload statements into Fastlane GRFP
- ✓ Submit application by disciplinary deadline



The NSF makes no deadline exceptions!

Fall 2012 example: Mizzou applicant was disqualified for being **16 seconds** late.

[Manage My Application](#) | [HOME](#) ▶[Prepare Application](#)

▼ INSTRUCTIONS

[Privacy Act](#)

* Required Field

[Instructions for Preparing GRFP Application](#)

- The GRFP application is divided into sections with separate headings. Instructions are provided for completing each section. The required fields are indicated by an asterisk (*). Before you start this application, please read the Application Preparation Instructions in the [Program Solicitation](#).
- You may complete the sections in any order that you choose. Navigate through the application using the links in the title for each section.
- You may save your application information as you go and complete it at a later time. Click "Save and Continue" to save your data and advance to the next step. Caution: Using the buttons on your Internet browser toolbar can result in the loss of data.
- You can submit your application by clicking "Continue" in the SUBMIT APPLICATION section. The system will verify that you have provided the required information to submit your application. Please review these certifications before you start. You will not be able to submit an application without making these certifications. Five certifications must be made before the National Science Foundation can authorize funds for a fellowship award. These concern 1) controlled substances; 2) delinquency on Federal debt; 3) debarment and suspension; 4) eligibility criteria; and 5) originality of the application.
- You can check for application completeness at any time while preparing your application by clicking the "Check Application Completeness" link on the right of this page. **We recommend you save an electronic copy of your completed application for your records**, as the application will not be available to you after decisions are made. Applications are not carried forward for resubmission in later years.

[Continue](#)[Check Application Completeness](#)

Click this link at any time while preparing your application to display the readiness of your application for submission.

▶ [PERSONAL INFORMATION](#)▶ [EDUCATION AND WORK EXPERIENCE](#)▶ [PROPOSED GRADUATE PROGRAM](#)▶ [REFERENCES](#)▶ [PERSONAL STATEMENT, RELEVANT BACKGROUND, AND FUTURE GOALS](#)▶ [GRADUATE RESEARCH STATEMENT](#)▶ [NSF GRFP PROGRAM INFORMATION](#)▶ [SUBMIT APPLICATION](#)

2 GRFP Statements



3 pages



2 pages

- Motivation for an advanced degree
- Professional development plans
- Research experiences
- Career goals

and

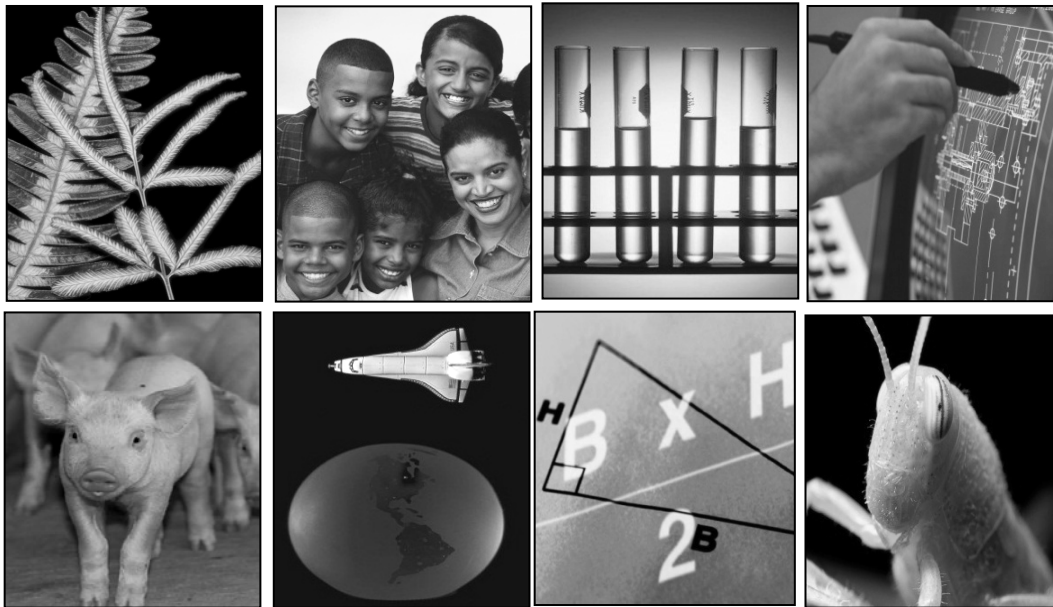
- Intellectual Merit
- Broader Impacts

- Original research topic
- General approach (methods)
- Resources needed
- Literature citations

and

- Intellectual Merit
- Broader Impacts

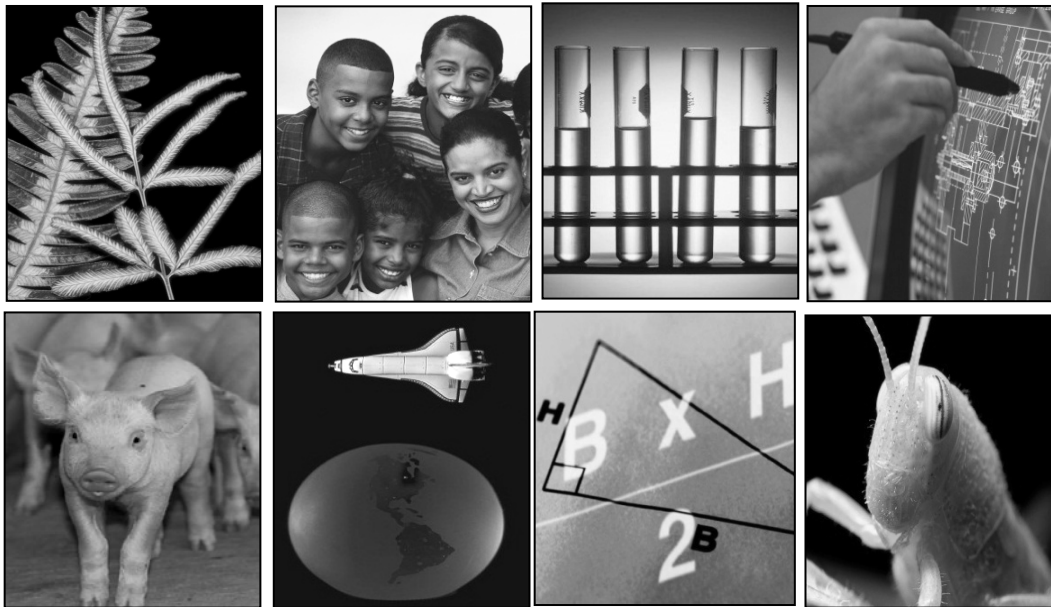
Any Questions?



National Science Foundation's GRFP Competition

Part 2:

Review Criteria & Process



National Science Foundation's GRFP Competition



National Science Board

GOVERNING BOARD OF THE NATIONAL SCIENCE FOUNDATION & POLICY ADVISORS
TO THE PRESIDENT AND CONGRESS



GRFP's 2 Review Criteria

Intellectual Merit

The potential to advance knowledge.

Broader Impacts

The potential to benefit society and contribute to the achievement of specific, desired societal outcomes.



“Desired societal outcomes”

A few examples:

- full participation of women, persons with disabilities, and underrepresented minorities in STEM
- improved STEM education and educator development
- increased public scientific literacy
- a diverse, globally competitive STEM workforce;
- improved national security and economic competitiveness
- enhanced infrastructure for research and education.



GRFP Reviewers' Charge

Reviewers are instructed to...



- give **full** consideration to *both* criteria - in review *and* decision making processes
- assess each applicant individually, holistically
- comment on the strengths & weaknesses of the application with respect to IM and BI

Reviewers seek evidence of *past* IM & BI....



...and make inference about an applicant's *potential* for IM & BI.

Complete GRFP Application Packet:



Personal,
Relevant
Background
& Future
Goals

Graduate
Research
Topic



Online application

transcript(s)

2 statements (5 pages total)

3 reference letters

1st Review Criterion: IM

“Indicators” of Intellectual Merit

- academic preparation, performance & honors
- previous research experiences
- engagement with international researchers
- mentoring younger researchers
- quality/rigor of proposed graduate research project

Generally, highly competitive applicants also have:

- * scholarly publications, presentations &/or posters
- * *exceptional* reference letters

2nd Review Criterion: BI

“Indicators” of Broader Impacts

- previous & proposed research with BI outcomes
- educational outreach with lay audiences
- engagement with diverse audiences
 - age, race, ethnicity, gender, disabilities, income, veterans, or underserved individuals living in isolated areas

Some reviewers also make note of:

- * service learning & study abroad (global engagement)
- * leadership & teamwork; communication skills
- * teaching any age, any level

Bottom line:

Statements MUST be equally strong



**Intellectual
Merit**



**Broader
Impacts**



National Science Board

GOVERNING BOARD OF THE NATIONAL SCIENCE FOUNDATION & POLICY ADVISORS
TO THE PRESIDENT AND CONGRESS



GRFP's 2 Review Criteria

Intellectual Merit

The potential to...



Broader Impacts

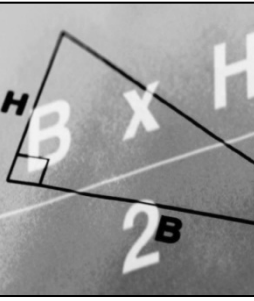
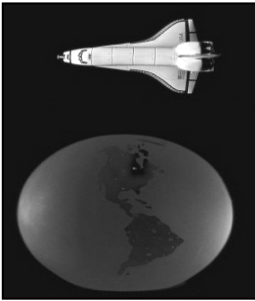
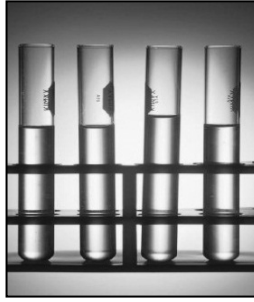
The potential to and
contribute to the achievement of
specific,



T/F Quiz: GRFP's 2 Review Criteria

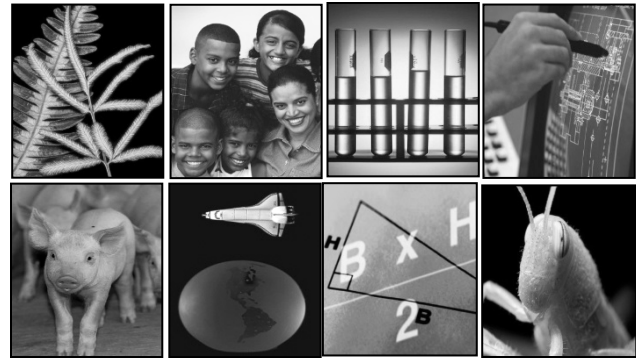
| Artifact or Description in Statement | IM | BI |
|--|----------------|----|
| 1. Transcript shows applicant's GPA of 3.9 dropped to 3.6 | ✓ | |
| 2. Presentation about scientific findings with civic leaders | | ✓ |
| 3. Research experience and outreach in a developing country | ✓ | ✓ |
| 4. Well written research plan with rigorous methods section | ✓ | |
| 5. Exceptional reference letters on applicant's potential | should be both | |
| 6. Previous research with a group underrepresented in STEM | ✓ | ✓ |
| 7. Publication in university's McNair Journal | ✓ | |

Any Questions?



National Science Foundation's GRFP Competition

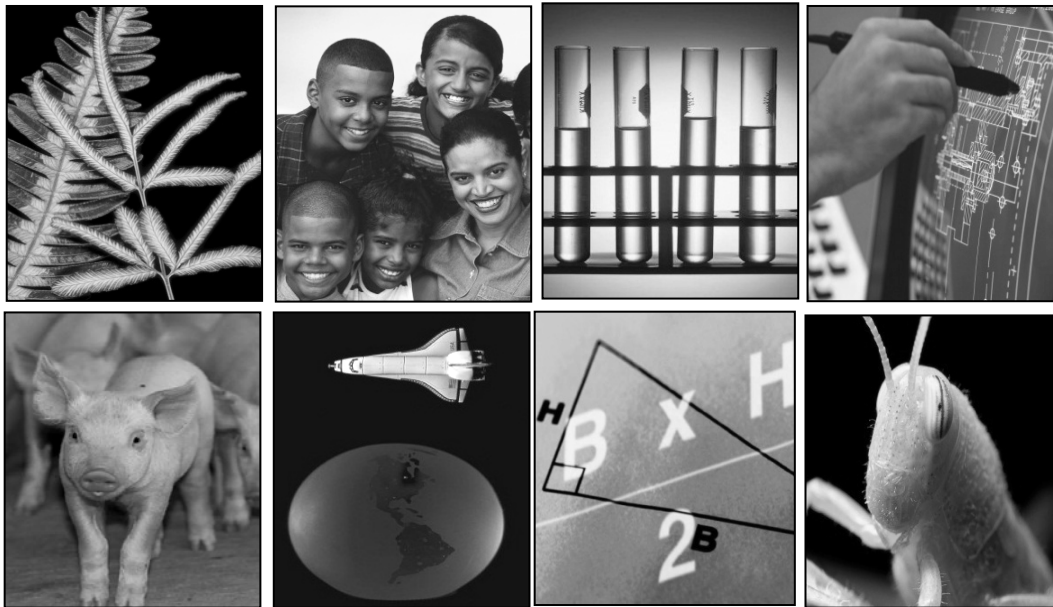
Making Progress



- ✓ GRFP Overview
- ✓ Review Criteria & Processes
- 3. Boosting students' competitiveness
- 4. Collaboration strategies
- 5. Motivating students to apply

Part 3:

How to Help Students Become More Competitive



National Science Foundation's GRFP Competition

First, find out “what it takes”

READ



<http://www.nsfgrfp.org>



<http://grfpessayinsights.missouri.edu>

NETWORK



Find Experienced GRFP Resource Persons

Looking to submit a more competitive application? Want to get in touch with someone who is already familiar with the program? Contact a graduate fellow who is at your current institution. GRFP Resource Persons are individuals who have experience with the program in different capacities. Most will offer to conduct panel fellow interviews, address questions, or provide letters of recommendation.

Please Note: Resource Persons Are Not Likely To Be Technical Experts In Your Field.

Click here to view a list of resource persons who have been selected to be interviewed and have their information here.

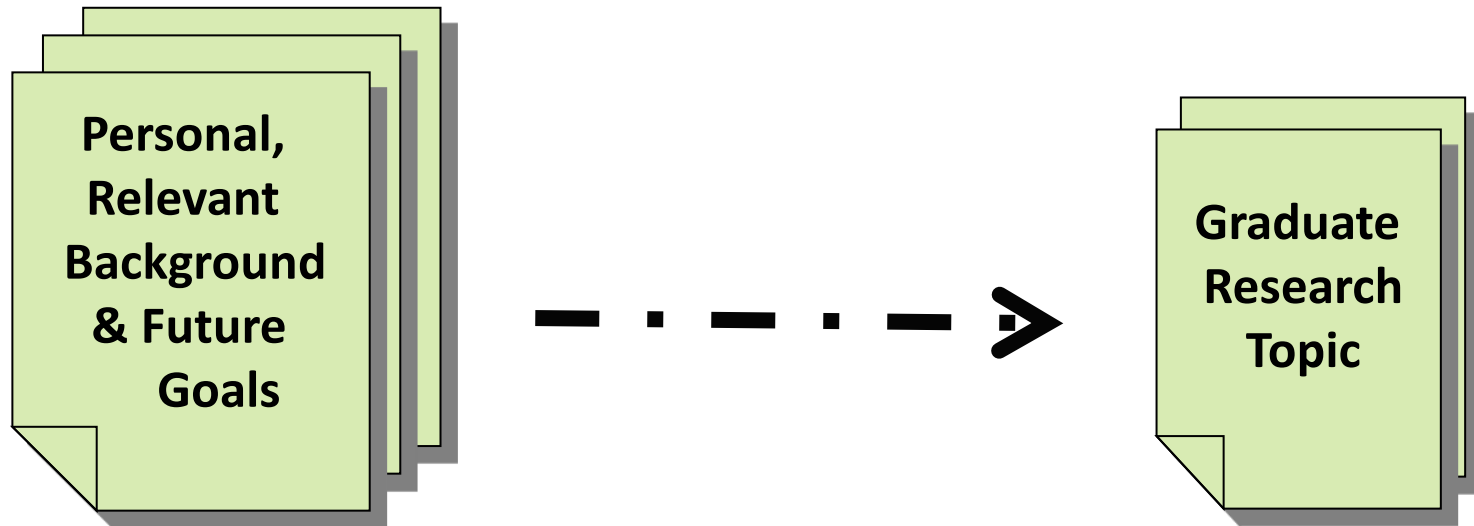
***Display the resource person's name: (R) designates a professional/academic member, (P) designates a current or past fellow, (F) designates a fellowship advisor, (A) designates a university administrator. (S) designates a graduate student, (U) designates an undergraduate student, and (D) designates a doctoral student.

| Institution | Name (Current Status) | Email | Department Or Field Of Study (If Known Or Applicable) |
|----------------------------------|-------------------------|---------------------------|---|
| A | | | |
| As Force Institute of Technology | Shawn A. Austin (P) | shawn.austin@afit.edu | Science & Math |
| As Force Institute of Technology | Robert M. Blevins (P) | rblevins@afit.edu | Dept. of Electrical and Comp. Engineering |
| As Force Institute of Technology | Mary L. Lonsdale (P) | mary.lonsdale@afit.edu | Mechanical and Computer Engineering |
| As Force Institute of Technology | Patrick Jackson (P) | patrick.jackson@afit.edu | National Fellowship Advisor |
| As Force Institute of Technology | Shirley L. Lonsdale (P) | shirley.lonsdale@afit.edu | History |
| As Force Institute of Technology | Shirley L. Lonsdale (P) | shirley.lonsdale@afit.edu | History |

http://www.nsfgrfp.org/applicants/tips_for_applying/experienced_resource_list

Second:

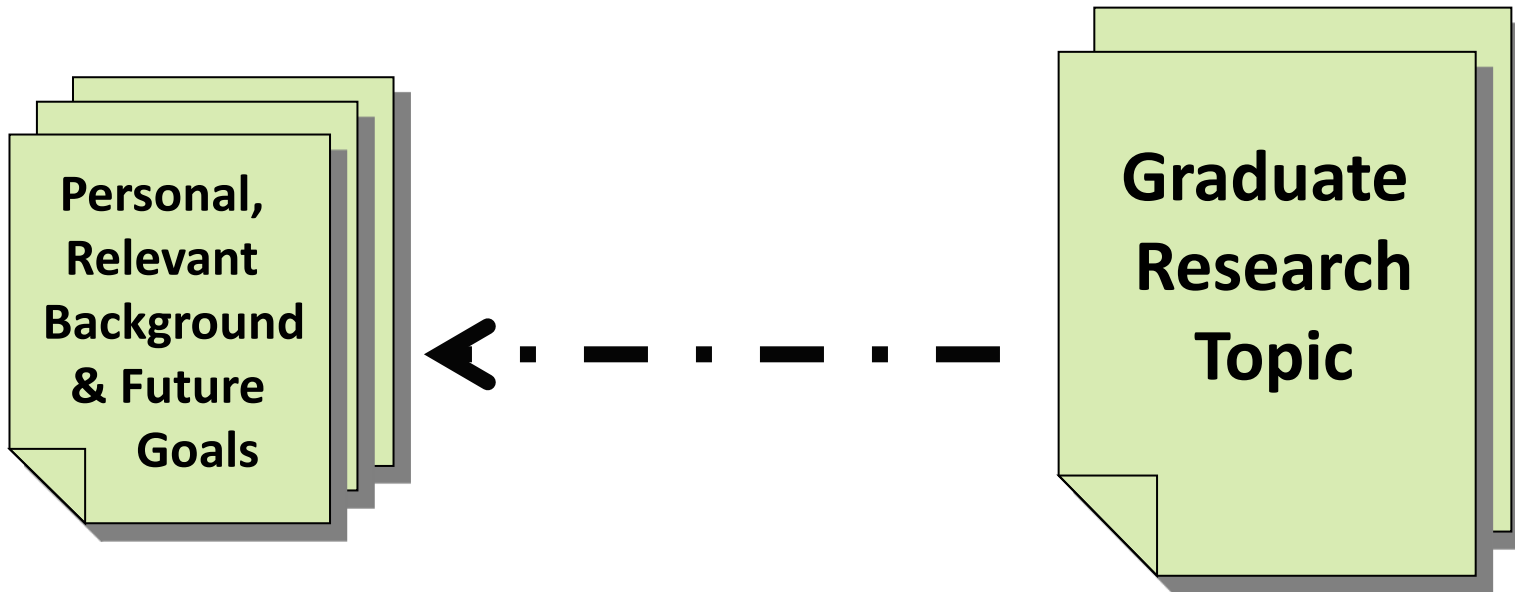
Understand how the GRFP statements are intertwined



How prepared is this applicant (e.g., knowledge, skills & abilities) to undertake a graduate research project *and* persist toward a graduate degree?

Second:

Understand how the GRFP statements are intertwined



How will this research project build the student researcher's IM & BI *and* help her/him achieve academic and career goals?

Personal, Relevant Background & Future Goals

HINT: Read awarded essays from SEVERAL fellowship competitions and serve as a reviewer.

Tip: Find examples on Alex Lang's site

[illegible]

Activity:

Practice reviewer skills



Step 1: Read example

- Half read page 1
- Half read page 2
- Find IM & BI examples

Personal,
Relevant
Background
& Future
Goals

See handouts

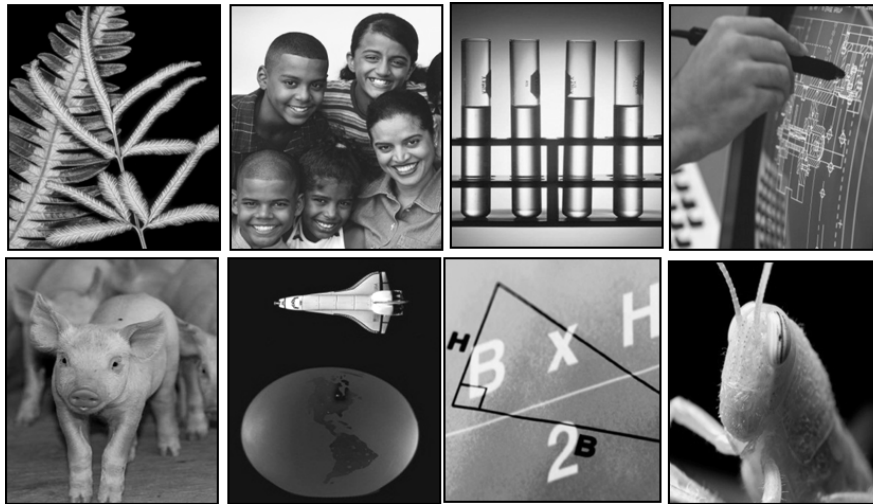
Step 2: Use rubric to help you critique the statement

| Self-Reflection Rubric for the GRFP | | | | |
|-------------------------------------|--|---|---|--|
| Criteria | Excellent (4) | Good (3) | Fair (2) | Poor (1) |
| Content | Statement is highly relevant, informative, and well-organized. It clearly demonstrates the applicant's qualifications and goals. | Statement is relevant and informative, but lacks some detail or organization. | Statement is somewhat relevant and informative, but lacks clarity and focus. | Statement is not relevant or informative, and is poorly organized. |
| Writing | Statement is well-written, clear, and concise. It uses appropriate language and grammar. | Statement is well-written, but may have some minor errors or lack of clarity. | Statement is somewhat clear, but may have some errors or lack of focus. | Statement is unclear, poorly written, and contains many errors. |
| Reflection | Statement shows deep reflection on the applicant's experiences and how they relate to their goals. | Statement shows some reflection, but it is not as deep or detailed. | Statement shows minimal reflection, and the applicant's goals are not clearly linked to their experiences. | Statement shows no reflection, and the applicant's goals are not clearly stated. |
| Future Goals | Statement clearly states the applicant's future goals and how they plan to achieve them. | Statement states the applicant's future goals, but lacks a clear plan for achieving them. | Statement mentions future goals, but they are not clearly defined or linked to the applicant's experiences. | Statement does not clearly state the applicant's future goals. |

Step 3: Discuss why the GRFP Office should invest in this applicant, based on examples of IM & BI you found in the statement.

Building Students' IM Capacity

Teach them to articulate how their research will **advance knowledge** within and across disciplines.



See handout
for more ideas!

Another key to IM:

Reference Writers & Their Letters

They should enter 5 references in ranked order.
(Suggested order of inferred importance to reviewers.)



1. Faculty mentors/advisers

who knows applicant's research knowledge & skills

2. Faculty who supervised summer research

who knows applicant's research knowledge & skills

3. Other campus faculty

who can attest to applicant's leadership, mentoring, teaching or team skills

4. Campus program directors

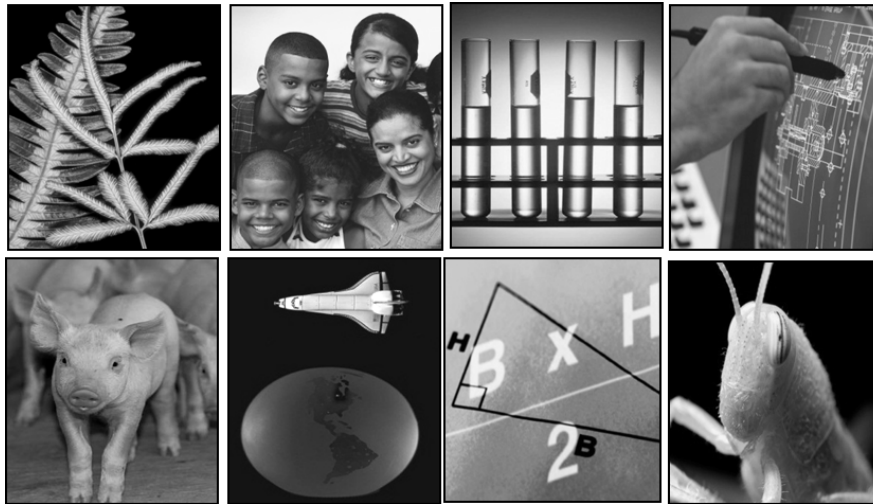
Honors College, McNair, service learning, study abroad

5. Current or former internship or work supervisors

best if research-related work or related to future career plans

Building Students' BI Capacity

Teach them to articulate how their research will **benefit society**.




See handout
for more ideas!

Create new BI opportunities for students to
improve public scientific literacy...

...or mentor a them as they launch
and evaluate an *innovative* STEM BI effort.



Student + Teacher Collaborations



division of biological sciences

Welcome to the Graduate Student Science Outreach website!

Home

List of Speakers

Tips for Teachers

Resources for Speakers

Feedback

Contact Us

Graduate Student Science Outreach (GSSO) is a program that connects graduate students from a variety of science disciplines from the University of Missouri with classrooms in local public schools to show how science is fun; and how interesting questions are asked and answered. Teachers can select from a list of graduate students who are available to speak to classrooms about their research and about the excitement of scientific discovery. The diverse backgrounds and research interests of graduate students participating in the program allow teachers to select from a variety of topics and presentation styles (e.g. interactive presentation, nature walk, etc.).

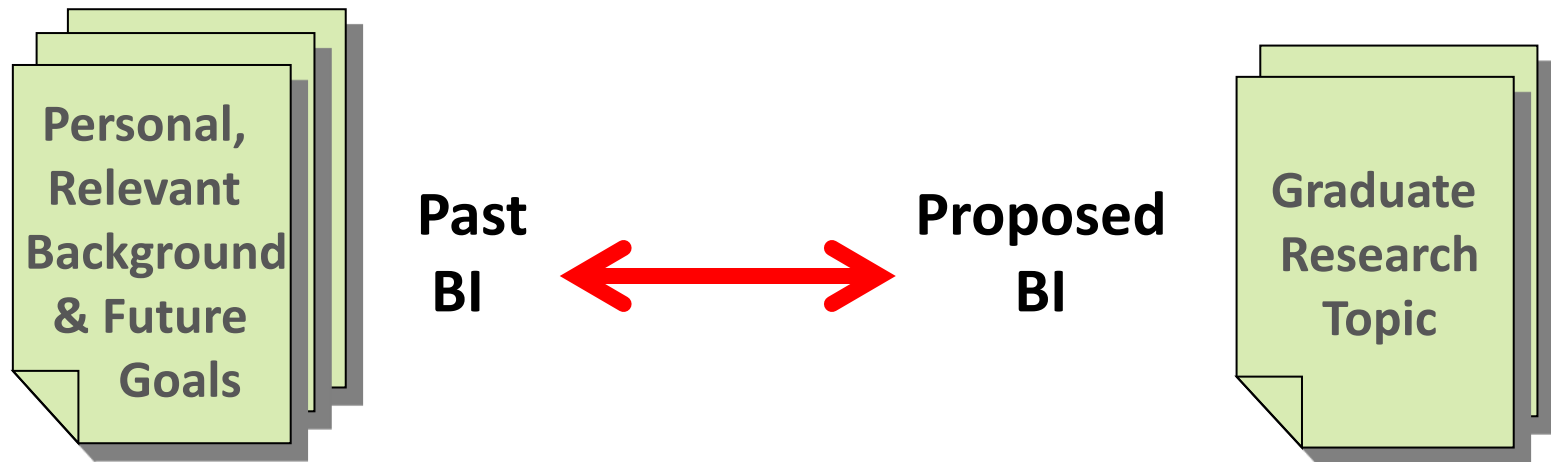
Participating graduate students attended a workshop led by the late Dr. Sandra Abell and Dr. Marcelle Siegel of the University of Missouri - Columbia Science Education Center. The workshop provided an introduction to effective lesson planning for K-12 students and provided strategies for constructing an engaging and valuable lesson.

W. Andrew Cox
2006 GRFP Fellow



According to reviewers...

...a track record of BI efforts is a good indicator that the applicant will follow through on the *proposed* BI activities.



Take home message:

Engage students in BI activities as early as possible!

Undergrads: create a program they can continue into grad school & early career

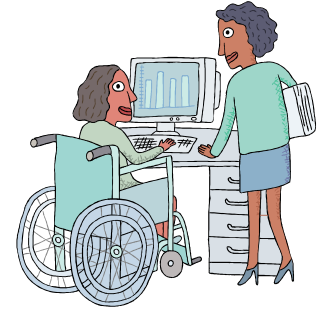
Grads: plan for sustainability or replication of project following graduation

Help Students Plan BI Activities

**Community
leadership &
teamwork**



**Leadership with
environmental
initiatives**



**Engagement
with diverse
audiences**

**Efforts to improve
public scientific
literacy**



**Cross cultural
experiences in US
or abroad**



**Teach
Mentor
Outreach**








**Educating
policy
makers**



Brainstorming Activity: Helping Students Plan a BI Activity

Directions:

As a group, use BI worksheet to devise at least one activity that is STEM related. Must be doable for a graduate student and feasibly connected to “desired societal outcomes.”

| Helping Future GRFP Applicants Plan Complementary Broader Impacts Activities | | | | |
|--|---|---|--|--|
| | Target Audience: <i>Who should we reach?</i> | Aim of Activity <i>What can we teach them?</i> | Targeted Venue <i>Where can we do this?</i> | Illustrative Societal Benefits (Outcomes) |
|  Community Leadership & Teamwork | | | | Increased partnerships between academia, industry, and others. |
|  Leadership on the Environment | | | | Improved well-being of individuals in society. |
|  Engaging diverse audiences in STEM | | | | Full participation of women, persons with disabilities, and underrepresented minorities in STEM. |
|  Communicate findings with lay groups | | | | Increased public scientific literacy and public engagement with science and technology. |
|  Global issues & cultural competence | | | | Increased economic competitiveness of the US. Development of a diverse, globally competitive STEM workforce. |
|  Educate policy makers | | | | Public scientific literacy; national security; economic competitiveness. Enhanced infrastructure for research & education. |
|  STEM Teaching Mentoring Outreach | | | | Improved STEM education and educator development at any level. |

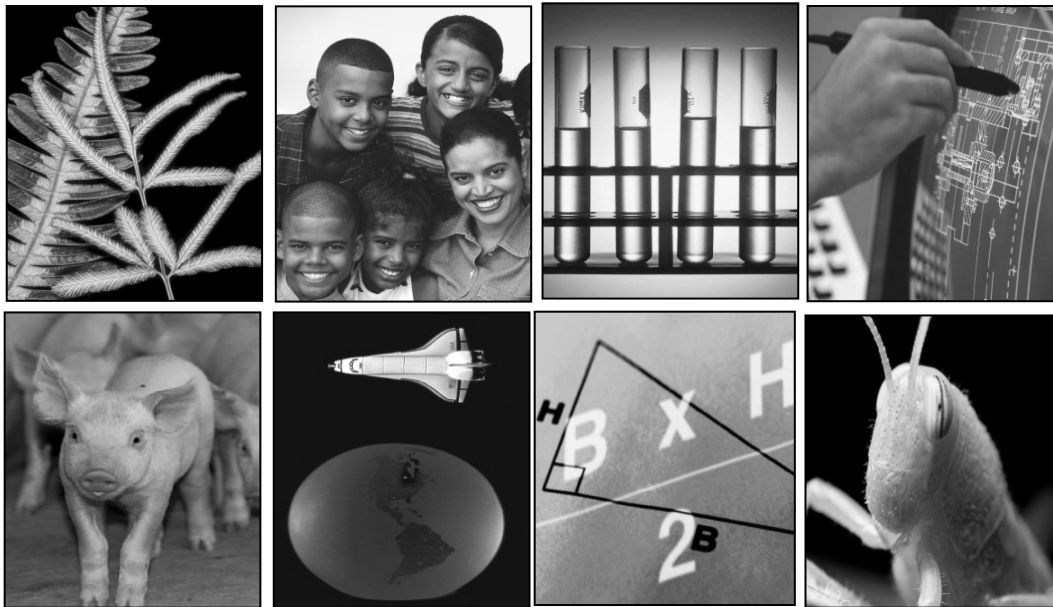
Copyright © 2012 by Ron G. Walker University of Missouri. Revised 9/12/15. See more: <http://grfp.missouri.edu/education/future>

See handout

Let's share BI Ideas!



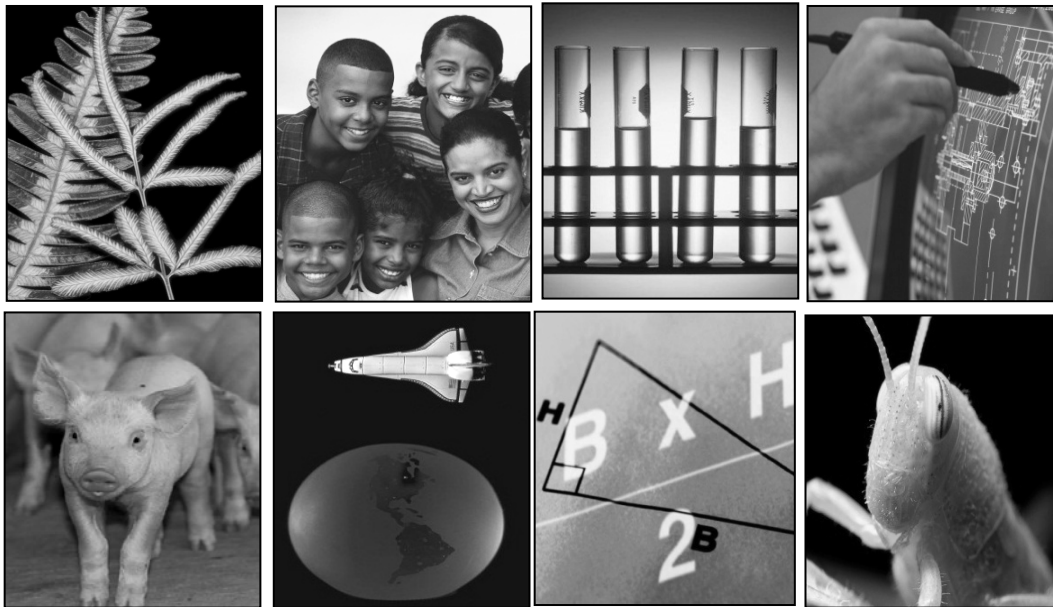
Any Questions?



National Science Foundation's GRFP Competition

Part 4:

Collaboration Strategies



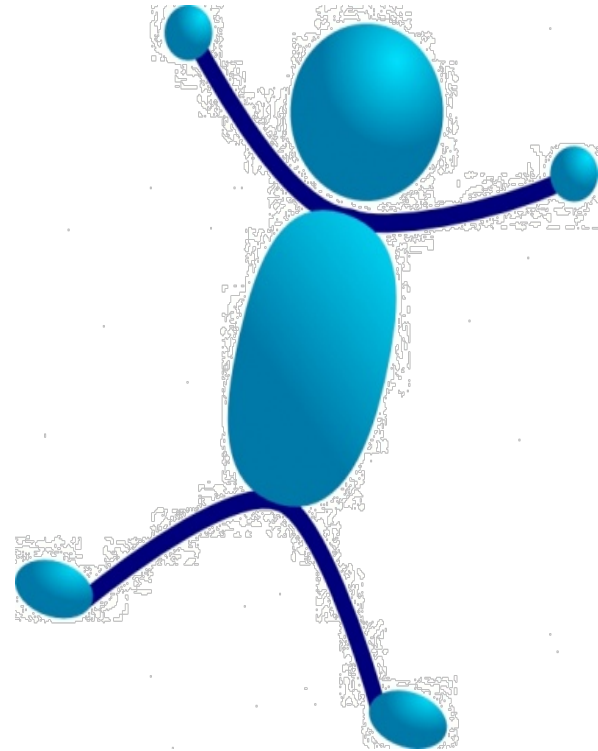
National Science Foundation's GRFP Competition

Realities Facing Students, Faculty & Staff

**Somewhat Limited
Resources**

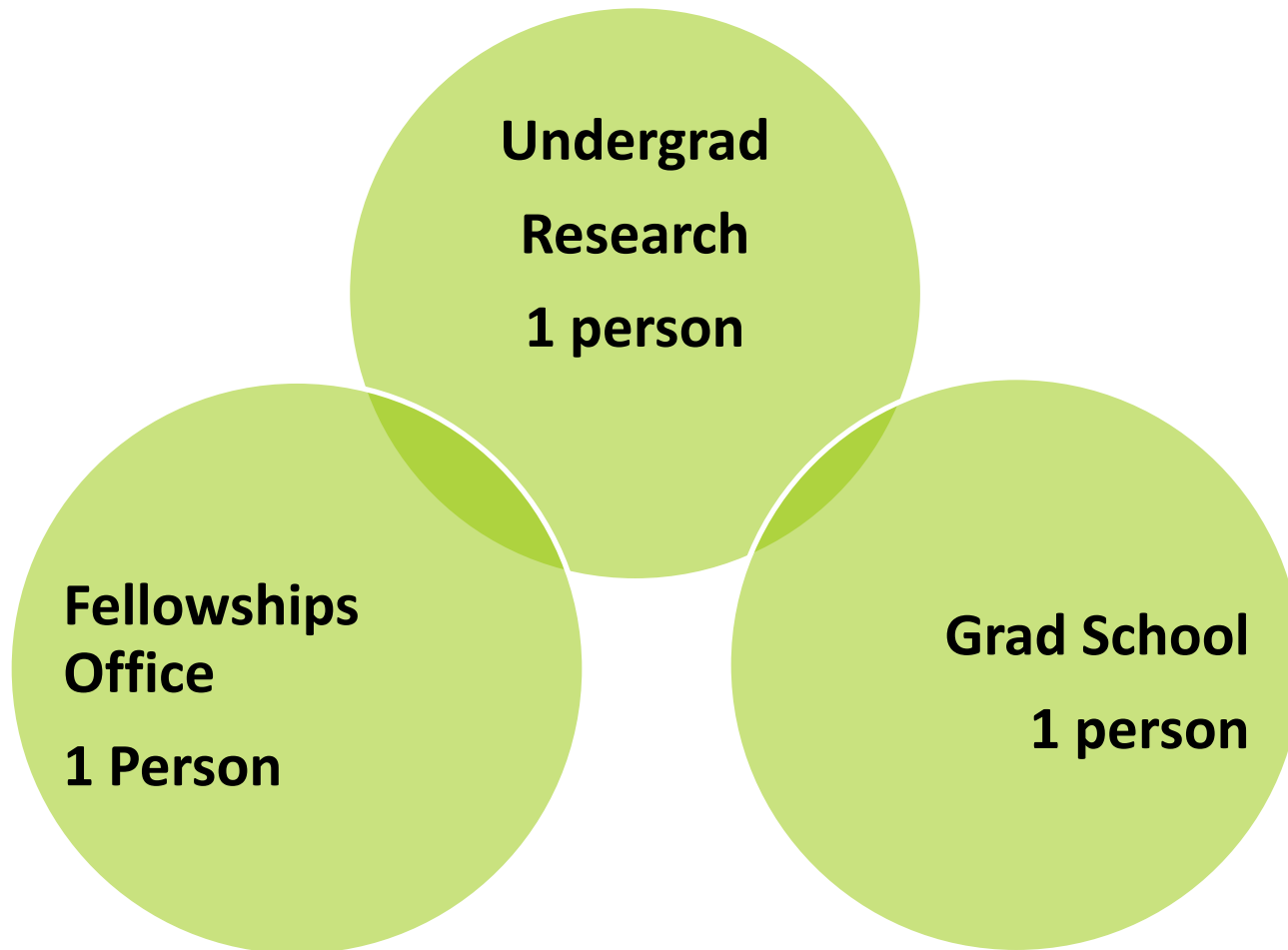


**Virtually Unlimited
Resources**





Mizzou Model: Where we started in 2006

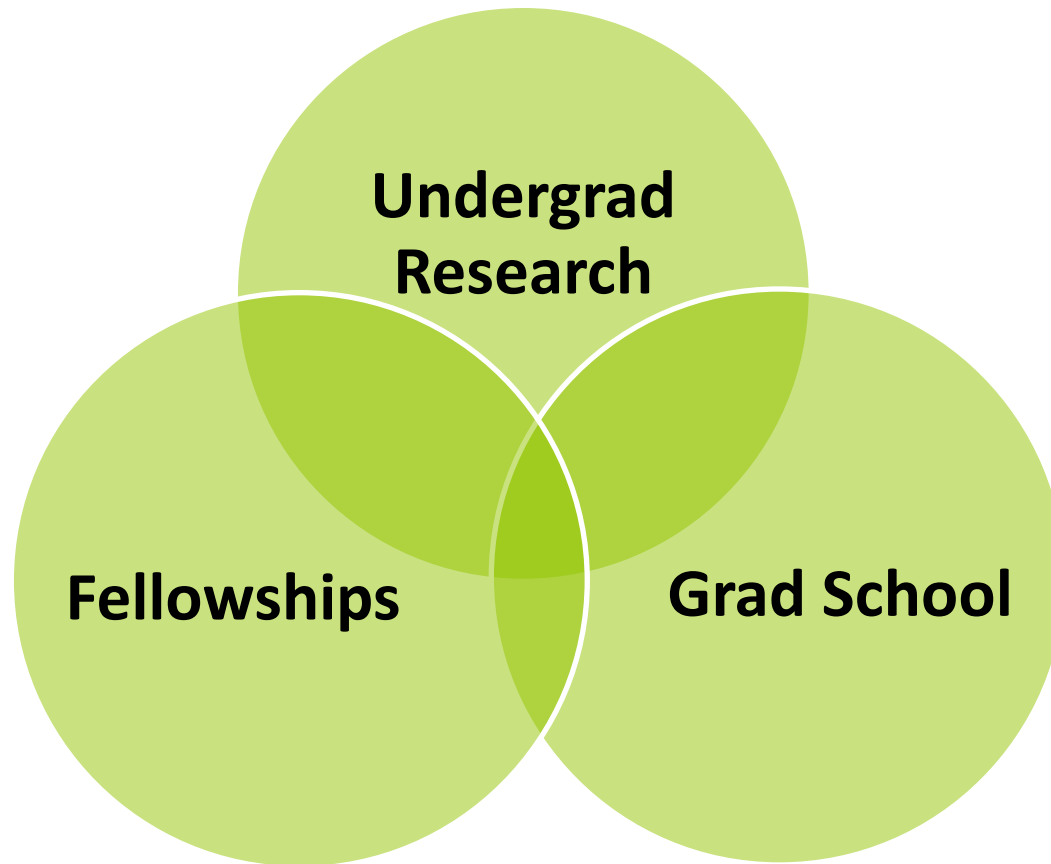


Enrollment: 21, 551

of GRFP Applicants: 14

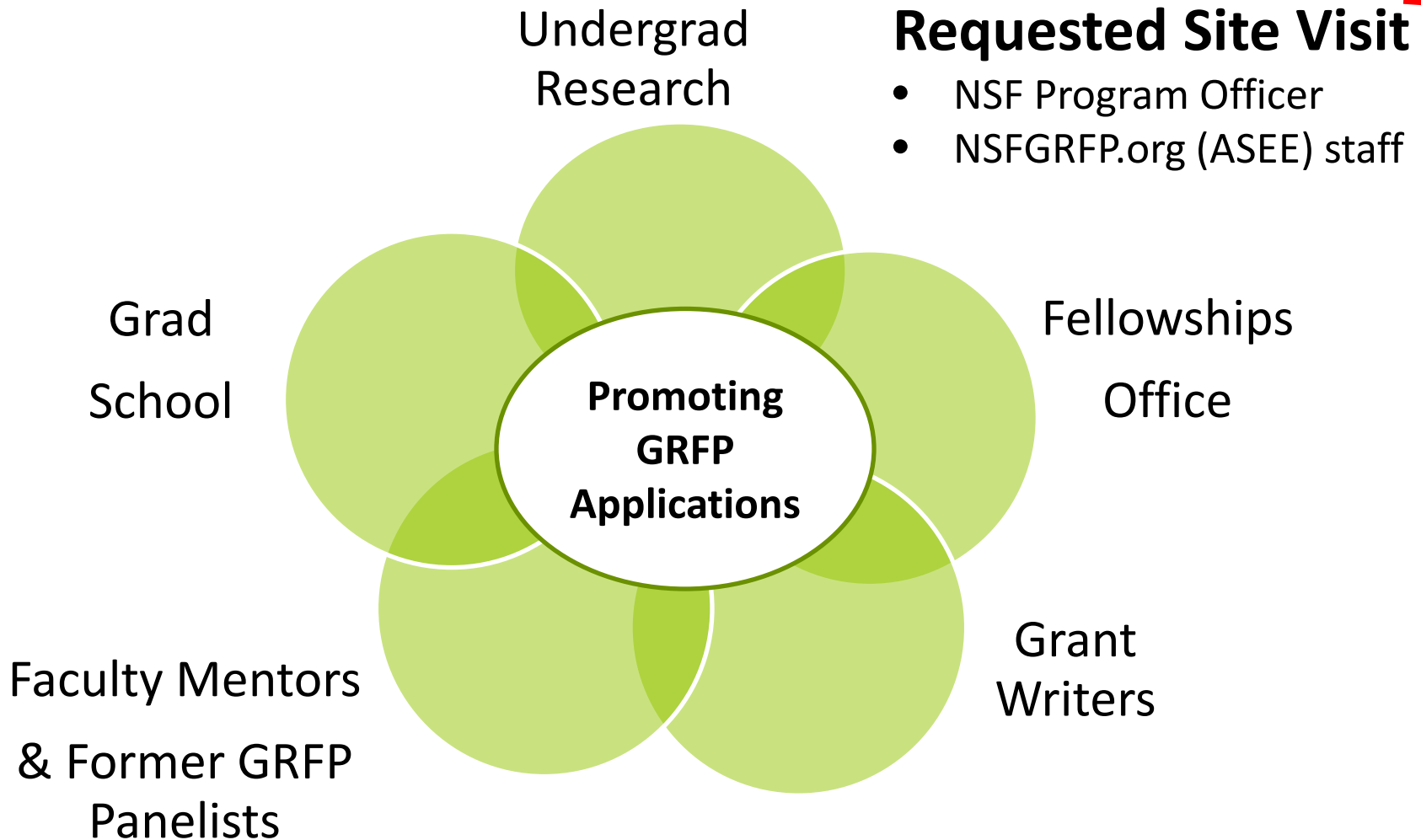


Mizzou Model: Joined Forces

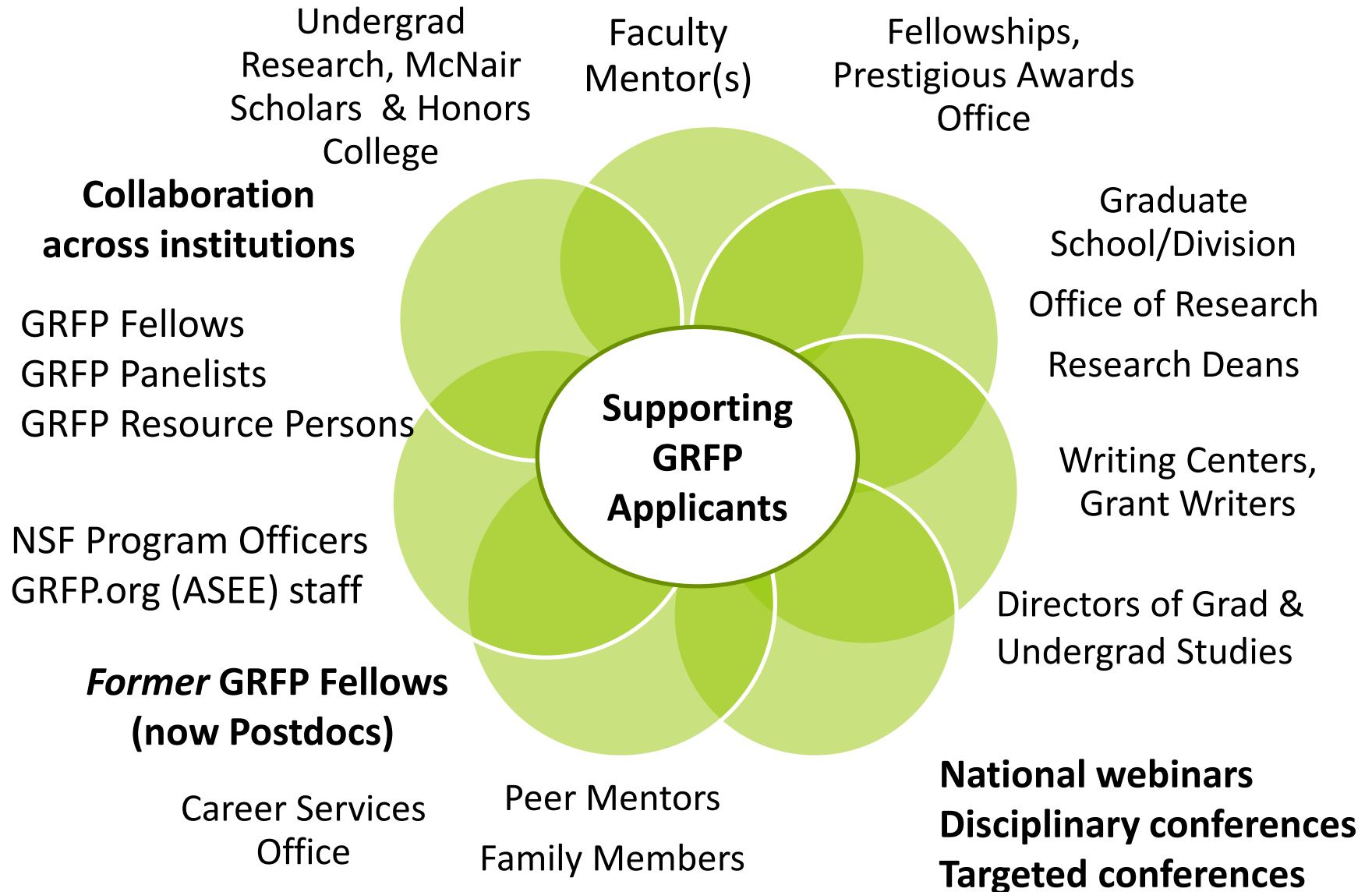




Mizzou Model: Growing Collaborations



Collaborative GRFP Approaches Across the US



Realities Facing Students, Faculty & Staff

**Somewhat Limited
Resources**

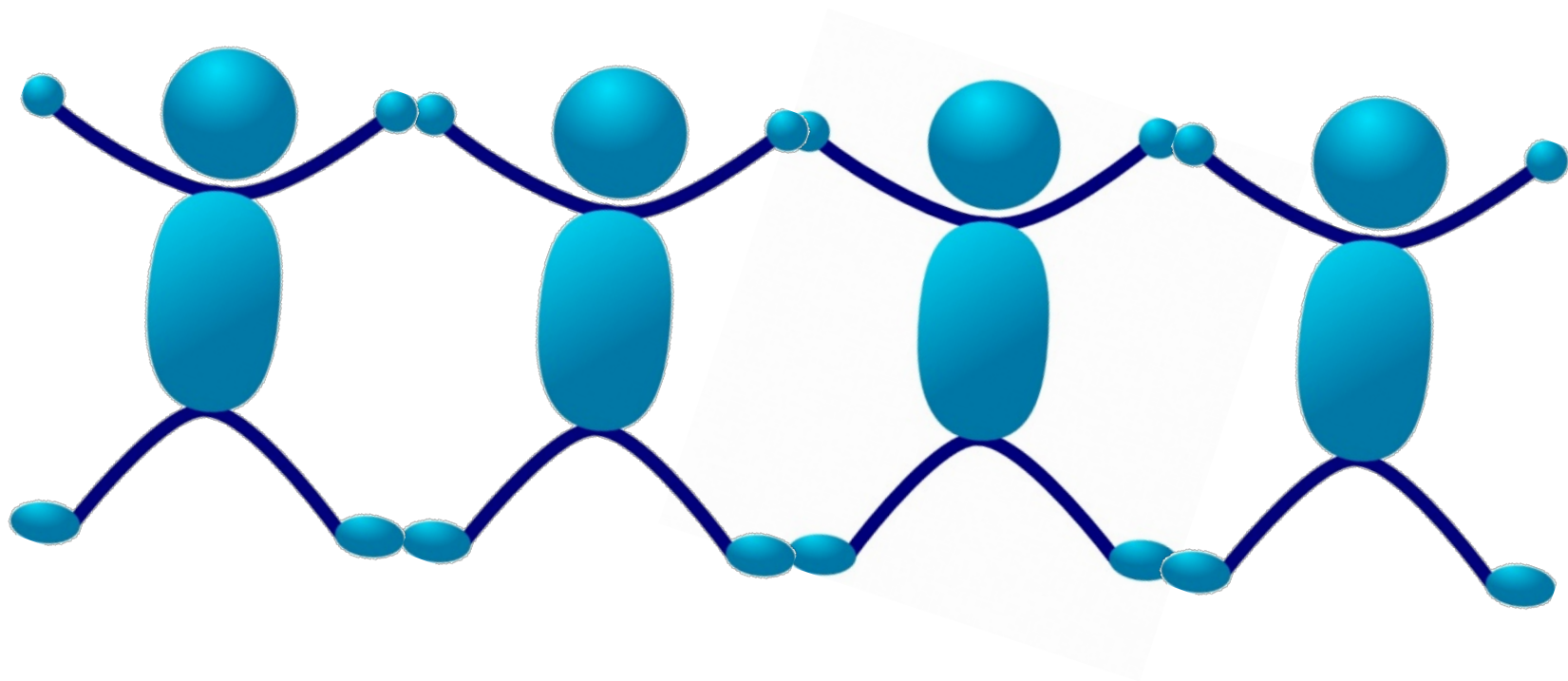


**Potential Collaborators
on campus & other campuses**



Please remember:

We share a goal of supporting students




Collaboration Activity: Identifying Collaborators



Directions:

As a group, talk about your resource needs related to the GRFP. Brainstorm ideas. Use the Collaboration worksheet to make a few notes on who you might contact when you return home.

Resources Tight? Finding GRFP Collaborators*
*As you are brainstorming, think about how you might be able to reciprocate the favor.



| Where do I need help with GRFP promotions & applications? | Potential collaborators &/or sources of expertise on & off campus | Target date for contacting |
|---|---|----------------------------|
| | | |
| | | |
| | | |

| How can we help our future GRFP applicants become more competitive? | Who can help students build IM & BI or help critique statements? Use potential collaborators &/or sources of expertise on & off campus. | Target date for contacting |
|---|---|----------------------------|
| | | |
| | | |
| | | |

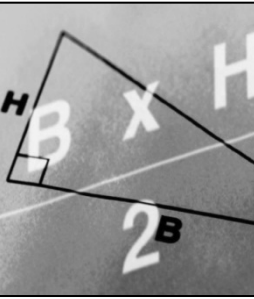
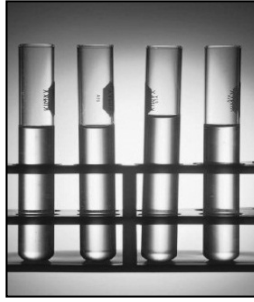
Did you hear an idea that may work for you? Follow up with that person for more information!

| Name & Institution | Remember to ask this person about... | Email |
|--------------------|--------------------------------------|-------|
| | | |
| | | |

Other notes:

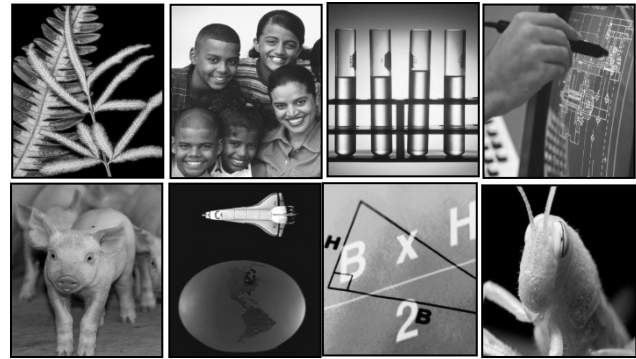
See handout

Any Questions?



National Science Foundation's GRFP Competition

Home Stretch

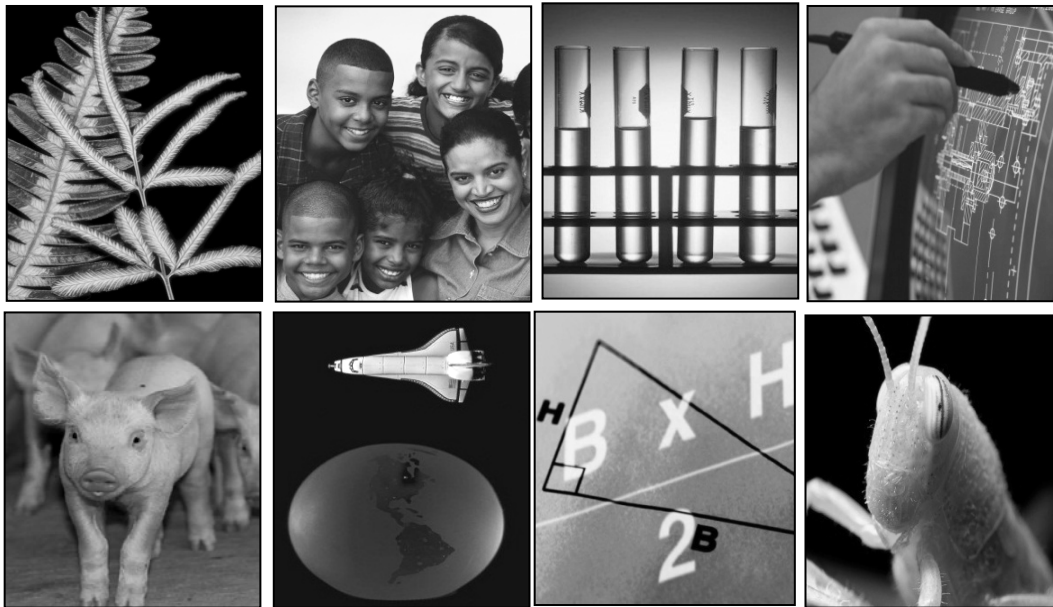


- ✓ GRFP Overview
- ✓ Review Criteria & Processes
- ✓ Boosting students' competitiveness
- ✓ Collaboration strategies

5. Motivating students to apply

Part 5:

Motivating Students to Apply



National Science Foundation's GRFP Competition

Q: Why don't your students apply?

- Not aware of GRFP or aware they are eligible
- Was told social scientist not competitive
- Feel unqualified or not ready to apply
- Too busy to write statements
- Tension with mentor over possibility of “leaving”
- Believe mentor will not write a strong letter



A few strategies
to help motivate
students to apply:

Engage current & former
GRFP Fellows

We asked Fellows...



What has been the greatest advantage of winning the GFRP?

- ... being able to focus on my classes and research...without having to worry about finding funding
- ... the freedom to choose where you want to attend graduate school
- ... increased probability of joining lab of choice
- ... once you finish the NSF GRFP application...graduate apps will be a snap
- ... time to focus heavily on research and create a good roadmap for my dissertation topic and methods

A few strategies
to help motivate
students to apply:

Appeal to their aspirations.



Why
take the time to
Apply for a
Fellowship?

Why apply?

“The NSF GRFP is one of the most prestigious fellowships that can be awarded to a graduate student. Having this award on your record

...opens many doors
down the road.”



MELONIE WILLIAMS
'09 FELLOW
VANDERBILT UNIVERSITY

GRFP Fellows “Down the Road”



1993 GRFP Fellow
Attended Stanford

6 years later, founded Google
Sergey Brin

- 30+ Nobel Laureates
- 440+ in National Academy of Sciences
- Other notable fellows
 - *Freakonomics* coauthor, Steven Levitt
 - US Energy Secretary, Steven Chu



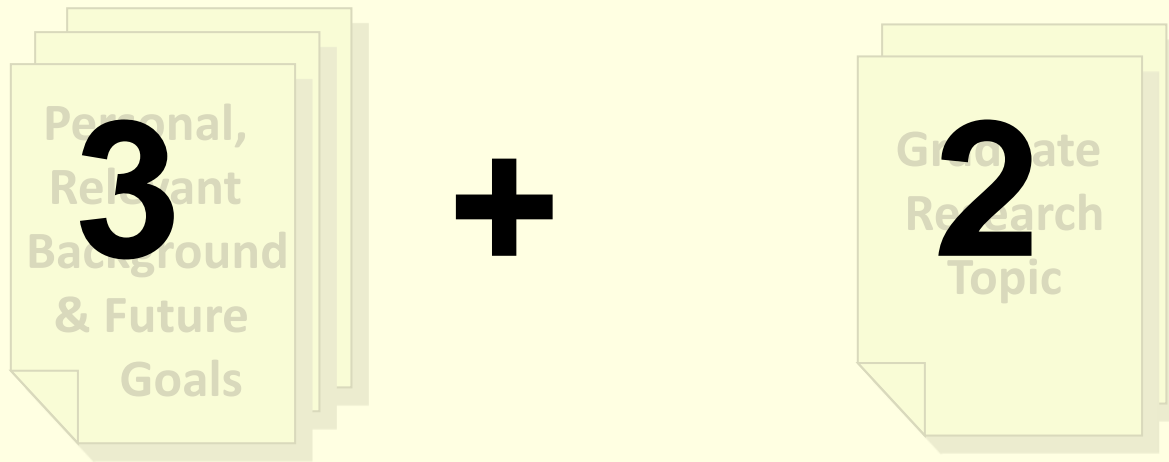
**Between 2001-2012, *active* Fellows
reported 1,232 patents and inventions**



A few strategies
to help motivate
students to apply:

GRFP award information
("Show me the money")

2 GRFP Statements



= 5 pages

for \$132,000



NSF GRFP Awards

| Year | # Applications | # Awards | Success |
|-------|----------------|----------|---------|
| 2008 | 10,000 | 1, 000 | 10% |
| 2010 | 12,000 | 2,000 | 17% |
| 2013 | 13,000 | 2,064 | 17% |
| 2014* | 14,000 | 2,053 | 14% |
| 2015 | 16,000 | 2,000 | 8% |

Source: <http://www.nsfgrfp.org/>

Note: Looks daunting, but these are actually VERY good funding rates!

* 1,069 women; 382 from underrepresented minority groups; 55 persons with disabilities; 37 veterans. About 20% (442) were from baccalaureate institutions.

Source: <http://www.nsf.gov/news>

If you can dream it,
you can achieve it.

– Zig Ziglar

A few strategies
to help motivate
students to apply:

Repurpose those statements!

“Repurposing” Success Stories



Kiran repurposed his personal statement for graduate school applications and was admitted to Northwestern.



Quentin repurposed his statements and received a \$36,000 award from NOAA which paid for his MS at the University of Texas-CC.

Encourage your students apply to several

Nationally Prestigious Programs



Fulbright

<http://www.us.fulbrightonline.org>



Churchill Scholarship

<http://www.winstonchurchillfoundation.org>



Goldwater Scholarship

<http://www.act.org/goldwater>



Ford Foundation Fellowship

<http://sites.nationalacademies.org>



National Defense Science & Engineering Graduate Fellowship

<https://ndseg.asee.org/>

A few strategies
to help motivate
students to apply:

Provide checklists, writing tools
& resource/support persons

Detailed GRFP Writing Resources:

<http://grfpessayinsights.missouri.edu>

Review criteria: IM & BI

* Outlines & worksheets

Checklist: stay organized

* Self-scoring rubric

Selecting references

Reference writer tips

Future applicant info

Advice from reviewers

GRFP Fellows' advice

* Links to statement examples

GRFP Essay Insights

Application Resources for the NSF Graduate Research Fellowship Program

On this site

- GRFP Overview
- How to Apply
- Review Criteria: IM & BI
- Defining Broader Impacts Planning BI Activities
- Defining "Desired Societal Outcomes"
- The Review Process
- Personal, Relevant Background and Future Goals Statement A Sample Outline
- Graduate Research Statement From Outline to First Draft
- Critiquing Your Drafts & Self-Assessment Rubric
- Selecting References
- Reference Writers: FYI
- For Future Applicants The Year You Apply
- Advice from Reviewers
- Writing Resources

Key links

- GRFP Announcement

GRFP Overview

The basics

The GRFP is a prestigious, nationally competitive fellowship offered by the **National Science Foundation**. It provides three years of financial support for beginning graduate study leading to a research-based degree in the STEM disciplines.



Financial support

The fellowship includes a \$32,000-per-year stipend for three years. Additionally, each Fellow receives a tuition waiver via a cost-of-education allowance that is awarded to the graduate institution. After one year of graduate study, Fellows become eligible to apply for international research funding support through Graduate Research Opportunities Worldwide ([GROW](#)).

Eligibility requirements*

***Always refer to the current NSF-GRFP Solicitation for official eligibility information.**

- Citizenship:** Must be a United States citizen, US national, or a permanent US resident by the application deadline. Refer to the [GRFP solicitation](#).
- Degree requirement:** Individuals are *typically* eligible to apply during the senior

Social network discussions

LinkedIn group: NSF Graduate Research Fellowship

Twitter: @NSFGRFP

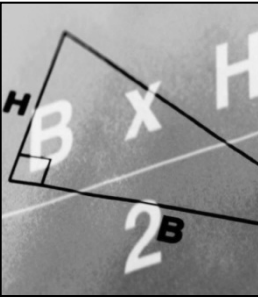
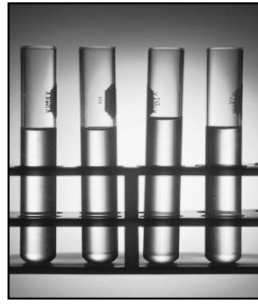
Facebook: NSFGRFP

thegradcafe: NSF GRFP 2014-15 not yet available

Advice from Fellows

An important reason to apply is that a significant part of the application is about assessing your confidence in yourself. Even if you don't receive the fellowship, applying can boost your confidence that you have the tools and ability to plan and propose research.

Any Last Questions?



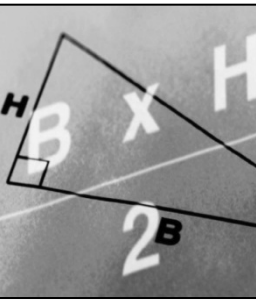
National Science Foundation's GRFP Competition

Thank you for joining us!



Dr. Robin G. Walker
Office of Graduate Studies
University of Missouri

Special thanks to
Dr. Linda Blockus
MU Undergraduate Research
Mr. Tim Parshall
MU Fellowships Office
Dr. Susan Renoe
National Association for
Broader Impacts



National Science Foundation's GRFP Competition