Grants & Fellowships for ACMS Graduates

AUGUST 29, 2016
Overview

- How we help
- Finding extra funding
- Major ACMS awards
- Grant writing skills
- Supporting information
- Upcoming events
- Reminders
How We Help
Office of Grants and Fellowships

We help you:

- Get money
- Build your CV
- Spin your story
- Sell your research

Strategy, examples, editing
ND Graduate Students WIN Fellowships

Current Graduates

Incoming Graduates

Email gradgrants@nd.edu to book an appointment.

- 1-on-1 or bring a friend!
- 502 Main Building
- Skype
- Draft review by email
- Other locations
Email gradgrants@nd.edu for access

200+ examples of winning applications

Research proposals

Personal statements

Presentations

Handouts for budgets, letters of recommendation, etc
How to Use Box

- If you have handouts and still don’t know where to start, start with Box
- Look at examples for your major or the same funding source
- Meet with a Grants & Fellowships consultant!
Box Troubleshooting

- Click “accept” on invite
- Login to box.nd.edu with short email (netid)

If it doesn’t work:
- Try incognito window
- Email gradgrants@nd.edu
- Email oithelp@nd.edu
Finding Extra Funding
Why Grants?

- Department recognition
- Extra stipend money
- If you win enough, no TAing
- Travel to conferences, research overseas
- Adapt essays for papers, reports, and classes
- Important business skill – persuasive writing!
- Add it to your CV
Internal vs External Grants

**INTERNAL**
- From the university
- GSU Conference Presentation Grant, teaching awards, Nanovic grants, etc
- Usually small awards
- Short applications

**EXTERNAL**
- From elsewhere
- US government, other countries, private foundations, conferences
- Small or large awards
- Short or long applications

Applying for **external** grants helps you get **internal** grants!
Major Grant/Fellowship Types

- Pre-dissertation – most common in STEM
- Exploratory research
- Library residence
- Dissertation – most common in humanities
- Dissertation completion
- Travel
  - Conferences
  - Study abroad
- Language grants
Major Grant Components

- Personal statement
- Research statement
- Letters of reference
- CV
- Transcripts
- Occasionally, test scores or “exhibits”

There are **stated requirements**, but also **hints**.
Fulbright & GRFP

- Many Box examples are for these programs
- Notre Dame is in Top 20 for both
- Very high success rate
- International students look at Chateaubriand & NASA NESSF as similar programs
Due **October 25** (CSE), **October 28** (math)

This year: 2000 winners, 2000 honorable mention

You have a much higher chance of winning this than getting into Notre Dame

US citizen or permanent resident

Current 2\textsuperscript{nd} years: apply!

Current 1\textsuperscript{st} years: apply year 1 or 2
More NSF GRFP Numbers

- 24 ND winners last year vs 29 prior 3 years
- 5 year award
- $138,000 total
- $34,000 stipend for 3 years
- GRIP (lucrative internship) & GROW (research abroad)
- XSEDE supercomputer access, even if honorable mention
Fulbright

- Campus deadline August 31
- US citizen
- Research, study, or teach English for 1 year
- Almost every country
- High acceptance rate

**Alternatives:** DAAD, Chateaubriand
Boren Fellowship

- Campus deadline December 12
- $24,000 - $30,000
- Research abroad
  - Excludes Western Europe, Canada, Australia, NZ
- Language & area studies or other
- National security service requirement
  - Work for at least 1 year for a federal agency
  - Includes Peace Corps, EPA, etc – not just CIA
Liebmann Fellowship

- Department nomination, then university
- $197,000
- US citizen
- Demonstrated financial need
- Any topic or field
EPA STAR

- Anything related to the environment
- Master’s or PhD level
- US citizen or permanent resident
- Up to $272,000
- Usually due in May
NSF DDRIG

- DDRIG = Doctoral Dissertation Research Improvement Grant
- 10-12 pages
- Anyone at a US institution can apply
- Depends on exact division your project falls under
  - “ACMS” isn’t a separate category
  - Some divisions (like chemistry) don’t have awards
First-year only

Data analysis & supercomputing

Very interested in interdisciplinary topics

Internship component

Looking for future employees at national labs
Microsoft PhD Fellowship

- Nomination required
- 3 nominations per department
- Second or third year
- Any citizenship
- Full tuition + $28k stipend + $4000 travel
Other Fellowships

- Almost every major company has fellowships
- Look for big names in your field
- Usually no citizenship requirement for companies

Data science:
- Google (Anita Borg)
- IBM – nomination required
- Facebook
Plan Ahead!

- Research fellowships that fit you
- Check deadlines
- Add fake deadlines to your calendar
- Set aside work time during “slow” season
- Recycle your writing – introduction sections, ARP papers, OCE papers...
- Make an account with your nd.edu email
- Search for grants and fellowships
- Change your keywords
- Filters need work
- After graduation, alumni.nd.edu email works
- Our office can help you search!
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Grant Writing Skills
Persuasive Writing in Applications

- Persuade them to give you money – they want proof of certain things
  - How well do your goals fit their goals?
- Style varies depending on audience
  - Pre-dissertation: cross between journal article & grad school application
  - Dissertation: thesis chapters
Persuasive Writing in Applications

- All government agencies evaluate based on intellectual merit and broader impact
- Phrases mean different things in different contexts
- Foundations look at similar criteria, but they might use different words

Look at the agency’s mission & website for additional hints
Example: NSF GRFP

- National Science Foundation Graduate Research Fellowship Program
- 3 pages for personal statement and 2 pages for research statement
- Most grants have parts for research & personal, but also additional info about you

What does this imply they care about?
You.

- The research ER, not the research
- They care about you and your potential
- Specifically, your potential to match their goals

Example: DOE CSGF wants interdisciplinary scientists to work on computational projects in national labs.
- Have you been taking classes outside your field?
- Do you choose projects that use supercomputers?
- Do you express interested in LANL/Oak Ridge/etc?
Meeting Fellowship Expectations

Example: Boren funds research and language training overseas. The focus is area studies, but they also want scientists.

If you are working on a health statistics project...

- How is this language necessary for your work?
- Can you explain the connections between your research and national security?
- Do you express interest working outside academia?
SuperYou

- Present the **best** version of yourself and your research for that grant
- Be specific
- Be realistic
- Be concise
- Point out grant goals
- Assume project will work
Hints, AKA Audience Analysis

- Look at the agency’s materials for hints
- We can help with audience analysis

In addition to mission & website:
- Winning essays
- Reviewers’ comments
- Program statistics & outcomes
- Instructions to reviewers
Research Statements

**INTELLECTUAL MERIT**
- Do you know the subject?
- Are you doing something new?

**BROADER IMPACT**
- Is it useful?
- Why should people care?

All grants want you to show these two things!
Personal Statements

INTELLECTUAL MERIT

▪ How did you prepare to do this research?
▪ Do you know the subject?
▪ How awesome are you?

BROADER IMPACT

▪ What outreach do you do?
▪ What will you do in the future?
▪ How will funding you help?

Personal statements also use intellectual merit and broader impact, but they mean different things.
Broad Impact Ideas

- STEM education & development
  - Teaching experiences
  - Creating classroom materials for K-12
- Science literacy & public engagement
  - Community education
  - Chem Demo Team, ScienceAlive!, etc
- Improved well-being of society
  - Other volunteer work
  - Warm & fuzzy stuff
  - Church activities count if it’s open to everyone
Broad Impact Ideas

- Diverse, globally competitive workforce
  - Languages
  - Study abroad

- Industry-academia partnerships
  - Internship
  - Public-private partnership

- National security
  - Interested in government lab?
  - Government job?
Broad Impact Ideas

- Economic competitiveness of US
  - Industry?
  - Industry-academia partnerships
  - Entrepreneurship
  - Patents

- Enhanced infrastructure for STEM education
  - Streamlining processes
  - Start a new program (certificate, new minor, K-12/university links)
Organization Helps

- Writing style matters less than the humanities, but it still helps
- Most important is **readability**
- Use subheadings, images, tables to full advantage
- Proofread!
- Use precise language
- Avoid passive, weak verbs
Proposal Elements

- Hook/broader impact
- Your approach is different because...
- State specific objectives and/or goals.
- Describe methods.
- Give specific details about your timeline, resources, etc.
Funnel Method

First paragraph:
- First sentence (hook) starts broad and catchy
- More specific connection to the problem
- My project fixes this by _______________

Next paragraph: details
Be Specific

- Details, examples, and anecdotes are powerful
- Don’t say “I am [positive adjective] ”

“I am passionate about anthropology.”

“I hiked perilous game trails for five days to reach my research site.”
Be Realistic

- Things that make newspaper headlines might sound stupid to a scientist.
  
  “This will cure cancer.”
  
  “I will develop a new treatment for pancreatic cancer.”
  
  “My research on the CDKN2A locus will map new signaling pathways which may provide novel treatment targets for cancer.”
Be Concise

- There are unbreakable page limits
- Write long when you are drafting
- Cut out sentences that are repetitive.
- It’s OK to remind your reader of prior information
- BUT, you have to **balance** connections with _all_ relevant info that fits
Why Repetition?

- Your reader might be skimming
- The more times you say it, the more likely they are to notice/remember it
- Don’t repeat yourself exactly, but make connections between the different things you do
Connect the Dots

- Make each point support the next
- Logical flow
- The “overall picture” makes sense if you connect each topic

Show your preparation → your research → your goals → your future
“Show, don’t tell”

- Give examples of things you have done
- Specific results give the reviewer more info

“I am a strong leader.”

“When the library program for adult literacy shut down, I organized a fundraising and advocacy campaign that secured private funding partners for three years.”
Decisive, Definitive Language

NEVER Use:

- hope
- wish to
- pray that
- (explore)
- (investigate)

Use Instead:

- WILL
- intend to
- anticipate
- employ
- establish
# Precise Language

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Supporting Information
“Show, don’t tell.”

- 2 page resume or complete CV or fill-in-the-blanks
- Formatted perfectly
- Anyone can list “attention to detail” and “proficient with MS Office” on a CV, but does the formatting show that?
CV Components

- **Education**
  - Degree, institution, date
  - Minor, concentration, exams
  - Dissertation abstract

- **Honors & Awards**
  - Remember the feedback loop?
  - Include descriptions if needed

- **Publications**

- **Presentations**
CV Components

- **Teaching**
  - Courses, dates, descriptions

- **Service**
  - Academic leadership positions
  - Conference organization
  - Official outreach

- **Languages & Certifications**
  - Use official numbers where possible

- **Professional Memberships**
Teaching Portfolio

- 1-2 page teaching philosophy
- Summary of teaching evaluations
- Syllabi
- Sample assignments & grading rubrics
- Student reflections
- Lesson plans
- Example narrative
Letters of Recommendation

“50% of what we know about an applicant comes from letters of recommendation.”

- Have a PhD & like you
- Choose a variety of referees to give a complete picture:
  - Your PI
  - Faculty familiar with past performance
  - PhD familiar with your outreach work
- Ask early for a strong letter of recommendation
Asking

- Make it easy on your letter writers
- Initial request two+ months in advance
- Provide drafts, CV, & list of relevant points 3-4 weeks in advance
- Provide a brief strategic analysis of the opportunity
- Provide a list of things to highlight/outline
The Best Letters

Address:

- The student’s intellectual merit and strength of character
- The significance of the project within the student’s field and beyond
- The student’s preparedness to undertake the project
- The feasibility of the project
Supporting Document Resources

- **CV** – Career Services
  - Find 3-5 examples from your field
  - Some examples on box.nd.edu
- **Teaching Portfolio** – Kaneb Center
- **Recommendation Letters** – handouts
- **Writing Sample** – Writing Center
  - Dissertation chapter, etc
  - Proofread!
Upcoming Events
Fall Break Boot Camp

- October 17-21
- Dedicated workspace while the undergrads are gone
- Breakfast
- Snacks
- Unlimited draft review
Workshops

- Wed, August 24, 4:30 pm, Jordan 105: Reviewer Q&A Panel
- Thurs, September 1, 5 pm, Jordan 101: Drop-in consults
- Friday, September 9, 1 pm: Letters of Recommendation
- Monday, September 12, 1:30 pm, 2nd floor LaFortune: USAID
- Monday, September 12, 3 pm, DeBartolo 101: Summer workshop repeats starting this Monday
- Monday, October 3, 2 pm, DeBartolo 101: Boren Fellowships
- Wed, October 5, 7 pm: Ford & GEM
Reminders
Remember This

- **gradgrants@nd.edu**
  - Email any questions
  - Draft review

- **box.nd.edu**
  - Email for access

- **pivot.cos.com**
  - Sign up with ND email
QUESTIONS?