Going for the Gold

MCNAIR PROMISING PRACTICES INSTITUTE

John Mateja, PhD
President
Goldwater Scholarship Foundation
My History

BS (1972, physics), PhD (1976, nuclear physics), University of Notre Dame

Faculty Member – Tennessee Technological University
Senior Program Leader, Division of Education Programs – Argonne National Laboratory
Program Manager, Office of Basic Energy Sciences – Department of Energy
Program Officer, Division of Undergraduate Education – National Science Foundation
Dean/UR Office Founding Director/McNair Director (11 years) – Murray State University
President – Goldwater Scholarship and Excellence in Education Foundation

Council on Undergraduate Research (President, Councilor – 32+ years)
National Conference on Undergraduate Research (Chair, Board Member – 10+ years)

Fellow – American Physical Society and Council on Undergraduate Research
Presentation Overview

Rethinking How We Use National Scholarship Competitions

Competing for a Goldwater Scholarship

Mission
The Scholarship
Statistics
2019 Competition
Secrets to Winning a Goldwater Scholarship
Questions/Contact Information

“The Goldwater application was my first research proposal. I learned that that science is a truly creative endeavor: I was limited only by my imagination and the laws of physics.”

Christina Chang, Chemistry
Princeton University
2011 Goldwater Scholar
Rethinking How We Use National Scholarship Competitions
National Scholarship Application Strategy

Culminating Activity
- Student begins to think about award when starting to fill out an application
- Money and recognition

“Roadmap to Success”
- Student reviews award criteria EARLY in academic program & plans accordingly
  - Sciences: Goldwater, NSF GRF, Churchill, Hertz
  - Other Areas: Fulbright, Rhodes, Truman, many others
- What will they find they need: research, interaction with faculty, 3 letters of recommendation, good grades, and carefully considered career plan.
From a McNair Program Perspective

The “Roadmap to Success”:
- tells your students you hold them in high regard and have high expectations of them,
- identifies a pathway to success for them,
- provides a benchmark against which students can check their progress, and
- sets the bar for students and mentors.

Winning national awards/scholarships raises the profile of your program!
Example – Goldwater Scholarship

Questions asked on Goldwater application:

1. Describe your career goals and professional aspirations.
   - Describe which STEM areas you are considering pursuing in your research career and specify how your current academic program and overall educational plans will assist you in achieving your goals.

2. Describe and activity or experience that has been important in helping shape your desire to pursue a STEM research career.

3. (Optional) Describe any social and/or economic impacts you have personally experienced that have influenced your education – positively or negatively – and describe how you dealt with them.

4. Research project (Start/stop date; hours/week; description; mentors; publications; presentations)
Example – Goldwater Scholarship (cont.)

Questions asked on Goldwater application:

5. Activities/Accomplishments (Organization, Scope of activity [international, national etc]; Leadership position, Length of Involvement).
6. Recognitions (Describe recognition, Type [international, national, etc], Award year)
7. Academic Record (GPA; Courses taken and anticipated; anticipated credit hours at graduation; transcripts)
8. Letters of Recommendation – 3 (letters that talk about potential to become a STEM researcher)
9. Research Essay (Extensive description of a research project describing student’s role/contributions to the project)
Where’s the Gold?

The **GOLD** in Goldwater is going through process!

(or any other national scholarship)
Competing for a Goldwater Scholarship
Goldwater Mission

To provide the United States with a continuing supply of highly-qualified RESEARCH scientists and engineers in the natural sciences, engineering and mathematics.
The Scholarship

Sophomore
• Up to $7,500 in each of a student’s Junior and Senior years

Junior
• Up to $7,500 in a student’s Senior year

“I really enjoy helping students with their studies and conveying my passion for research, I find it to be a very rewarding experience.”

Sean Thatcher, Biology
City University of New York: College of Staten Island
2015 Goldwater Scholar
Statistics – Past Goldwater Recipients

**Total number of scholarships (1989 - 2018) = 8130**
**Amount awarded (1989 - 2018) – Over $65 M**

**2014 survey of all awardees (1989 - 2013)**

- 99% have at least one degree
- 49% have earned a Ph.D. in science, math or engineering
- 20% still working on a Ph.D. (Bringing total PhDs to ~70%)
- 8% have completed “other” doctoral degrees (e.g., M.D., J.D.)
- 72% report current involvement in research
2018 Statistics – Nominations/Awards

(Scholars + HMs) / Nominations = 38%
2018 Statistics - By Discipline

Percent

- CHEM
- CISE
- ENG
- GEO
- LIFE
- MATH
- PHYS
- PSY
- MED

Legend:
- % NOM
- % SCHOLARS
- % HM
2019 Competition

Nomination Period:
• Opens – First Tuesday after Labor Day
• Closes – Last Friday in January at 5:00 p.m. CT

Eligibility:
• Full-time Sophomore or Junior
• Intent to pursue a research career in the natural sciences, engineering or mathematics
• GPA of 3.0 or Higher
• U.S. Citizen or permanent resident
2019 Competition – Nomination Process

Steps in the Nomination Process

• Student must complete a pre-application and profile → Campus Representative

• Application Elements
  • On-line student questionnaire
    • Can review the questions on the web site
  • Research Essay
  • Transcript(s)
  • Letters of Recommendation (3)

• Each registered academic institution may nominate up to four students
Characteristics of a Strong Application

• Coursework consistent with goal to attend grad school
• Research Essay demonstrates experience and leadership or well-developed research plan
• EVERY application element suggests a research career
• Three strong Letters of Recommendation
• Strong academic credentials (generally 3.5 - 4.0)
Developing a Strong Application

- Read **ALL** the Instructions, tips and FAQS
- The Goldwater scholarship is **ALL** about a research career
- Letters of Recommendation are very important – chose letter writers carefully
- Have others review student’s materials
- Proofread, Proofread, Proofread!!!
Secret to Winning Goldwater Scholarships!

Nominate Your Students!

Convince Goldwater that Your Students Are Destined to Become Research Professionals!
Questions?

Contact Information:

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Goldwater web site:
https://goldwater.scholarsapply.org

“This distinction is proof to anyone beginning their journey a little later in life, as I have, that it is truly never too late to pursue your dreams.”

Staci Okada
Massachusetts Bay Community College
2016 Goldwater Scholar