American Astronomical Society (AAS) and

NASA Astronomy and Astrophysics Advisory Committee (AAAC)

Survey on Grant Proposal Pressure

April 2015

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I. Introduction

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The major federal agencies that provide competitive grant funding to US astronomers -- NASA, NSF, and DOE -- all report declining proposal success rates in recent years. For example, the proposal success rate in NSF's Astronomy and Astrophysics Research Grants (AAG) program dropped from a peak of 50.4% in 1990 to a low of just 15.4% in 2003 [...insert more vital stats, examples here...]. Such low grant success rates are widely believed to be detrimental to the overall health of the profession. Potential effects include rejection of many or most excellent science proposals; excessive workloads for grant reviewers; and the departure of talented young astronomers to other fields.

The AAS Committee on Astronomy and Public Policy (CAPP) has prepared this survey jointly with the NASA Astronomy and Astrophysics Advisory Committee (AAAC) as part of an investigation of the causes and effects of declining grant proposal success rates. Data from NSF AST, NASA, and DOE show that, despite a relatively stable total number of US astronomers, much of the increase in proposal pressure results from more individual PIs, as opposed to more multiple proposals from a few PIs. But a more nuanced understanding of the nature of the increasing pressure requires additional information.

Your participation is needed...

Responses are anonymous...

Data will be used for...

Survey will take approximately xx minutes...

II. Career Info

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What is your current employment status?

-- grad student

-- postdoc

-- research staff

-- tenure-track faculty

-- tenured faculty

At what kind of institution are you employed?

-- Research university with graduate department

-- Primarily undergraduate institution

-- Private observatory

-- NASA center

-- National observatory

-- Industry (aerospace; optics; detector technology...)

What is your primary area of specialization?

-- planetary science and exoplanets

-- heliophysics

-- high-energy astrophysics

-- stars, star formation, stellar evolution, stellar structure

-- Milky Way

-- interstellar medium

-- galaxies, galaxy formation and evolution

-- cosmology

-- laboratory astrophysics

-- theory

[ -- theory, planetary

-- theory, stellar

-- theory, extragalactic including cosmology

-- stellar structure, evolution, and populations

-- star formation

-- interstellar medium

-- exoplanets

-- Galactic center

-- extragalactic: resolved

]

General demographic info:

-- In what year were you born?

-- What is your gender? (M/F/non-binary)

-- What is your ethnicity? [appropriate teminology?]

-- What is your highest level of academic degree?

-- If PhD:

-- How many years ago did you receive your PhD?

-- Are you currently looking for a permanent job?

-- If you are currently in a postdoctoral position, how many previous postdoctoral positions have you held?

Is any of your regular salary currently from PI grant support? Do not include academic summer salary.

If yes,

-- What is the funding agency or agencies?

-- What percent of your salary comes from those grants?

-- Were you a PI, a Co-I, or neither (for each grant)?

If your salary is a 9-month academic salary, have you had grant support for summer salary during the last five years?

If yes,

-- what is the funding agency or agencies?

-- what percent of your summer salary comes from those grants?

-- Were you a PI, a Co-I, or neither (for each grant)?

III. Grant application history:

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On how many grant applications to each of the following have you served as PI during the two periods 2010-2012 and 2013-2015? How may were approved?

Include formula-driven observation-support grants such as HST, Spitzer etc.

2010-2012 2013-2015

Agency Requests Approved Requests Approved

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NSF

NASA

DOE

On how many grant applications to each of the following have you served as CoI during the two periods 2010-2012 and 2013-2015

Include formula-driven observation-support grants such as HST, Spitzer etc.

2010-2012 2013-2015

Agency Requests Approved Requests Approved

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NSF

NASA

DOE

How many of those grant proposals were resubmissions of previous grant applications?

NSF:

NASA:

DOE:

If you submitted grant applications to NSF, NASA, and/or DOE in the last 6 years:

What was the main reason or reasons you sought grant support?

-- To pay your own regular salary

-- To pay your own summer salary

-- To support a graduate student researcher

-- To support a postdoctoral researcher

-- Professional software engineers, etc.

-- Equipment

-- Travel

-- Other

-- ???

In writing grant proposals, have you crossed outside the normal boundaries of your primary discipline? (Y/N)

Is writing grant applications an explicit (or an unspoken but implicit) expectation for your position?

For how many of your grant applications in the last 6 years was there a pre-proposal screening process?

If "yes", I felt the pre-proposal process was unduly burdensome:

(strongly agree <--> neutral <--> strongly disagree)

How many times have you served on a grant review panel for each of the following agencies during the last 6 years? How many proposals did you read for each panel?

NSF:

NASA:

DOE:

I feel that serving on grant proposal review panesl has been unduly burdensome:

(strongly agree <--> neutral <--> strongly disagree)

IV. Effect of grant proposal success rate on your career

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I feel that my career has been negatively impacted by low proposal success rates at NSF, NASA, and/or DOE:

(strongly agree <--> neutral <--> strongly disagree)

I am seriously considering leaving my discipline because of low proposal success rates:

(strongly agree <--> neutral <--> strongly disagree)

I feel that, given the low success rates and time investment required, writing grant proposals has interfered with rather than helped my career.

(strongly agree <--> neutral <--> strongly disagree)

NSF, NASA, and DOE are all considering or have begun various mechanisms to address low success rates. Please indicate the degree to which you believe the following three would be good solutions:

-- limiting applicants to two PI or CoI proposals per year.

(strongly agree <--> neutral <--> strongly disagree)

-- limiting applicants to one PI or CoI propos every two years.

(strongly agree <--> neutral <--> strongly disagree)

-- instituting a pre-proposal screening process.

(strongly agree <--> neutral <--> strongly disagree)

Do you have other suggestions for how NSF, NASA, and DOE should address declining proposal success rates?

V. Open-format comments

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Do you sense that grant funding prospects in US astronomy are getting worse?

If so, do you plan to change your career plans in any substantial way, and how?

Any additional comments on grant funding for US astronomy?

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END OF SURVEY

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Suggestions/possible questions on hold, and issues to be (re)considered:

Agencies: add all divisions and branches [currently removed divisions]

[ Solicit explicit $ amounts requested/approved? ]

What percentage of your time is paid for by each grant?

Angela: need to keep questions easy to answer

Scale of 1 to 5

How to capture temporal trends better?

Jim: survey is too complicated. Instead: "Do you sense that it's getting worse?" "