

## **KSTF Research Fellowship – How to Apply**

### **Purpose**

The KSTF Research Fellowship seeks to support early career scholars engaged in critical research in education. We encourage applications from scholars in all disciplines that promise to make significant scholarly contributions to areas that are consistent with the mission of KSTF, which is improving high school mathematics and science teaching in the United States. More specifically, we support those who can contribute to understanding recruitment, preparation, induction, mentoring and/or retention of high quality high school science and mathematics teachers.

### **Award**

The fellowship of \$110,000 will be awarded in 2010. Typically, the award is \$55,000 for two years. Usually up to three fellowships are awarded. KSTF expects that fellows will not receive any other financial award to support the research project described in the Research Fellowship application during the 2-year fellowship tenure.

This is a non-residential fellowship. No part of the award may be used for overhead or indirect costs. Fellows may conduct their research at their home institutions or at other research sites that they have arranged. During their fellowship tenure, fellows will be required to attend three KSTF meetings each year to meet with KSTF Research Fellows and other researchers. One of these meetings will be part of the KSTF Summer Meeting, which brings together KSTF Science and Mathematics Teaching Fellows, KSTF Research Fellows, veteran teachers, and science and mathematics teacher educators. At the summer meetings research fellows will be expected to provide presentations of their research and workshops for beginning teachers. KSTF will provide additional travel funds for fellows to attend these meetings.

### **Eligibility**

- Applicants must have received their PhD, EdD, or equivalent research degree by the start date of the fellowship (July 1, 2010).
- Applicants from universities and colleges may not be tenured before the start of the fellowship (July 1, 2010). Applicants from other research institutions must be within 6 years of having been awarded their final degree.
- Applications must be made by the individual applying for the fellowship. Group applications will not be accepted.
- The proposed project must be a research project.

## **Stipulations**

- Fellows must receive approval for their project from a human subjects review board prior to the release of the initial payment of fellowship funds.
- Fellows must forward notice from their institution which states that the institution approves and commits to this project prior to the release of the initial payment of fellowship funds.
- Fellows must provide progress reports to KSTF prior to the release of subsequent payments of fellowship funds.

## **Selection Process**

A full application for the KSTF Research Fellowships includes a pre-proposal and a full proposal. The pre-proposal deadline for the 2010 KSTF Research Fellowships has passed.

**Full proposals** for the **2010 KSTF Research Fellowships** are due **January 6, 2010, 5:00 pm, EST.**

**Pre-proposals** for the **2011 KSTF Research Fellowships** are due **June 30, 2010, 5:00 pm, EST** ([pre-proposal guidelines](#)).

Complete and eligible pre-proposals and full proposals (applications) will be reviewed by KSTF staff and selection panels.

Finalists for the 2010 KSTF Research Fellowships will be notified of the award in late March, 2010.

## **KSTF Research Fellowship Pre-Proposal Guidelines**

A pre-proposal is required of all KSTF Research Fellowship applicants. Only those who submit pre-proposals in June will be able to submit full proposals in January.

Pre-proposals for 2011 KSTF Research Fellowships are **due June 30, 2010, 5:00 pm EST.**

Pre-proposals serve several purposes in the Research Fellowship selection process. They allow applicants to receive feedback on the appropriateness and viability of their proposed research for the KSTF Research Fellowship program before expending the more extensive effort required for preparing a full proposal. In addition, the feedback that applicants receive from the senior researchers reviewing pre-proposals helps them improve the quality and appropriateness of their full proposals.

## **Pre-Proposal Components**

**For the pre-proposal, you will be asked to provide the following:**

- Information about how you learned of the KSTF Research Fellowship
- Contact information, including information on your current position
- Information on your most recent or highest degree
- A copy of your curriculum vitae
- A 250-word statement describing your professional history in relation to your proposed research and how it will contribute to your long-term professional goals.
- A 2-page (single-spaced) research project description addressing the following:
  - Research problem and research questions or focus
  - Theoretical perspectives and research literature
  - Potential data sources
  - Methods of data collection and analysis
  - Significance of the research and its relevance to KSTF's mission
  - List of references used in the project description. (Reference list is not included in the 2-page limit.)

## **Formatting Guidelines**

You will write your project description and upload it as a PDF file, thus ensuring that reviewers see your document as you intend. (If you are unable to create a PDF file, you may upload your project description as a .doc, .docx, or .rtf file.) Adhere to the following guidelines in preparing your project description document. The specified fonts, line spacing, and margins will result in project descriptions that are approximately 1000 words. Pre-proposals that do not follow these guidelines may be returned without review.

- Single line spacing
- All margins must be at least 1 inch.
- Use one of the following fonts at a size of 12 points or larger: Times New Roman, Times, Palatino, Arial, or Helvetica
- Any figures or tables must be included in the 2-page limit
- Reference list is not included in the 2 pages (i.e., it can be a third page in your document)

## **Review Process & Criteria**

Pre-proposals will be reviewed by a panel of reviewers in July and August, 2009. Once reviews are complete, you will receive feedback on your pre-proposal. At that time you will be asked whether you intend to submit a full proposal, which is due January 6, 2010.

Pre-proposals are reviewed by researchers representing expertise in science education, mathematics education, and teacher education. In reading and discussing pre-proposals, reviewers will consider the following criteria:

### 1. Relevance to KSTF mission

- Is the research relevant to the mission of KSTF, i.e., improving high-school mathematics and science teaching in U.S. schools via the recruitment, preparation, induction, mentoring or retention of high quality mathematics and science teachers?

### 2. Merit of proposed research

- Does the proposal state a clear purpose and rationale for the study?
  - Does the proposed research have the potential to make an impact in the field, i.e., contribute new and relevant knowledge to an important area of inquiry with regards to science and/or mathematics teaching in U.S. high schools?
  - Is the argument for the importance of the research written in a manner that is convincing and compelling?
- Is the proposal appropriately situated with respect to existing literature? In other words, does the proposal indicate research will build on or challenge what has been done before rather than "reinvent the wheel"?
- Is the proposal grounded in appropriate and explicit theoretical commitments?

### 3. Appropriateness of proposed research methods

- Are methods for data collection, analysis and interpretation clearly specified?
- Are these methods appropriate for the proposed purpose, research question, and theoretical perspective?

### 4. Scope of proposed research project

- Can the research reasonably be completed in two years?

### 5. Clarity and organization

- Is the proposal clearly written?
- Is the organization and structure of the proposal clear?
- Are key terms and constructs defined?

### 6. Potential of scholar:

- Does the proposed research suggest the initiation or continuation of an appropriate and promising research agenda?
- Do the proposed research and the applicant's CV suggest that the applicant shows promise as a scholar in his or her field?
- Are there noteworthy accomplishments in the applicant's short career?

The review panel will also make one of the following summary judgments of each pre-proposal:

- Proposal is likely to be competitive with suggested revisions
- Proposal might be competitive with suggested revisions
- Even with revisions, proposal is not likely to be competitive

### **Concerns Raised by Reviewers-Pitfalls to Avoid**

Here are some of the concerns often raised by reviewers of Research Fellowship proposals:

- The research is not clearly relevant to the KSTF mission. For example, the research might focus on important issues about students' learning of mathematics or science, but not address issues of teaching. Or the research might focus on instructional approaches or classroom processes without clearly addressing issues of beginning teachers.
- The research questions or focus are not clear (or are missing altogether).
- The project is too much development and/or evaluation of a particular intervention, not enough research. Because of KSTF's focus on beginning teachers, many proposals entail the development of an intervention or learning experience for prospective or beginning teachers. Developing such interventions, however valuable, is not in itself research. Evaluation of whether such interventions are effective is also important, but to be appropriate for the KSTF Research Fellowship program, the project must include research that contributes new and relevant knowledge to the field.
- The project is too big! It cannot reasonably be completed in two years. (One approach to addressing this problem is to sketch out a larger program of research, proposing to do a specific piece of that research for the KSTF fellowship.)
- The proposal is not grounded in key research and scholarly literature that is relevant to the proposed research. In some cases, grounding in research literature is simply missing; in other cases, particular important bodies of work or constructs from the research community are missing.