

NASA Harriett G. Jenkins Predoctoral Fellowship Project
Administered by UNCF Special Programs Corporation
Cooperative Agreement
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650-604-3540

PROJECT DESCRIPTION

In 2000, NASA introduced the Harriet G. Jenkins Pre-doctoral Fellowship Program (JFPF) to facilitate the development of a more inclusive, multicultural and sustainable workforce. The JFPF was developed, with a mission to increase the number of underrepresented persons with master's and doctoral degrees in the NASA pipeline, and ultimately in the science, technology, engineering and mathematics (STEM) workforce. This highly competitive fellowship annually provides up to 20 awards that provide support for a period of up to 3 years.

JFPF Eligibility:

- o U.S. Citizenship Required
- o Underrepresented persons in STEM
- o Grad Student within first 3 years of program
- o Minimum 3.0 G.P.A.

PROJECT GOALS

- ◆ To develop U.S. science, technology, and engineering expertise in ethnic and gender groups that are currently underrepresented in the STEM workforce
- ◆ To offset financial barriers for students underrepresented in STEM fields pursuing a graduate education
- ◆ To provide hands on research experience at NASA Centers
- ◆ To expose students to the salient aspects of professional and career development
- ◆ To develop students' skill sets and competence in applied science and engineering by providing collective and individual outreach opportunities to the K-16 educational community

PROJECT BENEFIT TO OUTCOME (1, 2, OR 3)

Outcome I: Contribute to the development of the STEM workforce in disciplines needed to achieve NASA's strategic goals, through a portfolio of investments.

1.2.1 Student Support: Number of under-represented and underserved students participating in NASA higher education programs.

The ultimate goal of the JFPF provides monetary support for fellows seeking advanced STEM degrees to relieve the financial burdens often associated with pursuing graduate degrees. Award packages may total up to \$35,000 /year and includes a stipend, tuition offset payment and a competitive mini-research award opportunity. The monetary support, accompanied with mentoring, networking and professional development training opportunities, lends the project to be all encompassing in preparing its fellows to enter the STEM workforce.

1.2.3 Student Support: Percentage of undergraduate students who move on to advanced education in NASA-related disciplines.

- ◆ The JFPF strives to provide more than just monetary support for its fellows in an effort to achieve NASA's strategic goals. The JFPF seeks to strengthen NASA and the nation's future workforce through fellow participation in professional development training, and STEM outreach opportunities.
- ◆ Fellows are provided information and encouraged to continue in the NASA pipeline by exploring other NASA funding or job opportunities that will carry them beyond their JFPF tenure.

PROJECT ACCOMPLISHMENTS

JFPF serves as a major link in the student pipeline used to address two of the three education goals from NASA's 2006 Strategic Plan.

To date fifty-six percent of the JFPF fellows entered the program with previous NASA-related experience through summer internships, space grant fellowships, co-ops, etc. In an effort to leverage the talent, the JFPF has established links to a number of NASA's Educational Programs. Linkages ascertained through NASA's undergraduate Student Researcher Program (USRP), the Curriculum Improvement Partnership Award (CIPA) and the NASA Science & Technology Institute allow the JFPF fellows to serve as mentors and role models to the "next generation of space explorers". Some noteworthy accomplishments include:

- ◆ 151 scholars funded since 2001 to form 8 successful cohort groups.

- ◆ These cohort members represent over 70 institutions of higher education.
- ◆ Cohort members have established linkages with other NASA Office of Education Programs.
- ◆ Sixty percent of M.S. recipients continued their education in an accredited STEM Ph.D. program.
- ◆ All JFPF graduates are gainfully employed in STEM education or aerospace industries
- ◆ 17% of JFPF Alumni are employed with NASA
- ◆ JFPF Alumni Advocacy increases each year. Alumni are often part of recruitment efforts.

PROJECT CONTRIBUTIONS TO PART MEASURES (INCLUDE DATA PLUS EXPLANATION)

For the period: October 1, 2007 through September 30, 2008

Total # participants reported FY08 (Cohorts 5, 6, 7): 54

Still in school: 48

Eligible for workforce: 6

1.2.2: # Employed at NASA: 4

1.2.2: # Employed in Aerospace Industry: 1

1.2.2: # Employed at Educational Institutions: 2

1.2.2: # Employed in other STEM Industry: 0

1.2.2: Total # Employed at NASA & Aerospace Industry: 5

Other/ Seeking Employment/non-Responder: 0

1.2.3: # Seeking Adv STEM Degree Actual #s for FY08: 54

1.2.5: # Participants who were in previous NASA program: 22

1.5.2: #Underserved/underrepresented students participating: 54

1.5.2: # MSI's participating: 6

IMPROVEMENTS MADE IN THE PAST YEAR

Over the past year, the JFPF has worked to strengthen the various components that frame the entire project. By strengthening these areas over the past year, the program was able to utilize funding more efficiently and ultimately provide a better fellowship experience

for its participants. By strengthening the opportunity for the fellows to be successful during their fellowship, we increased our ability to be successful in meeting the overall program goals.

1. The JPPF management team streamlined program communication to increase efficiency in fellow reporting, payments, etc.
2. Fellows received professional development trainings under the Special Programs Institute for Advancement (SPIA) program.
3. The JPPF management team has capitalized on the use of technology (webinars, listserves, chat communities) to keep current and Alumni JPPF cohort members informed and connected; thereby achieving an immediate sense of community and awareness.
4. JPPF had increased alumni advocacy in recruitment, mentoring, and outreach efforts.
5. For the first time, during this year's annual symposium event, private industry organizations attended as exhibitors and sponsors of the conference. Company representatives were able to meet and network with key NASA officials and program participants from five of NASA's higher education programs. It is believed that this interaction will result in potential employment and/or internship opportunities as well as research and funding opportunities for our fellows. It also develops an initial relationship between these organizations and NASA.

PROJECT PARTNERS AND ROLE OF PARTNERS IN PROJECT EXECUTION

United Negro College Fund Special Programs Corporation (UNCFSP) – UNCFSP has administered the Harriett G. Jenkins Pre-doctoral Fellowship since 2001. In this period, over 70 institutions of higher learning have been represented. UNCFSP has played an integral role in the development and overall success of the project through its ability to leverage its existing network of partnerships with institutions across the country.

HBCU's, MSI's, HSI's, & TCU's as well as majority institutions, serve as an advocate for the project. These various types of institutions work to promote the project and provide us with a sufficient pool of qualified applicants which ultimately result in participants. Minority institutions (MIs) account for 20% of the JPPF graduate institutions; 17% of the JPPF Fellows matriculate at MIs; 40% of the JPPF graduates received their doctorate degree from one of the top 50 U.S. doctoral institutions for science and engineering.