The NASA Astrobiology Program - Minority Institution Research Support (MIRS) Program: A Dozen Years of High Return on NASA's Investment. T.P. Gary[1], MIAC, Nashville, TN, B.Bell[2], NASA Goddard Space Flight Center, Greenbelt, MD, A. Mendez[3], Planetary Habitability Laboratory, University of Puerto Rico, Arecibo, M. Ceballos[4], Division of Science and Mathematics University of Minnesota – Morris, MN, M. Kirven[5], NASA Astrobiology Institute, Moffett Field, CA, and K.C. Bradford[6], NASA Ames Research Center, Moffett Field, CA.

Introduction: The NASA Astrobiology Minority Institution Research Support (MIRS) Program was created in 2002 to broaden the participation of faculty and students from Minority Serving Institutions (MSIs) in astrobiology. The program provides sabbaticals, follow-up support, and travel opportunities for faculty and students from MSIs to engage in joint research with NASA sponsored astrobiology research laboratories. All together MSIs enroll more than two million underrepresented students and graduate them at a higher percentage than most majority institutions. Several MSIs have made significant contributions to the field of astrobiology. For example, an astronomer at Tennessee State University, an HBCU, was part of the team that made the first direct detection of an exosolar planet in 1999 and identified the first exoplanet found in a habitable zone in 2010.

Since 2002, the MIRS program has had a significant return on its investment. Following a small investment to fund sabbatical research and travel, the 28 MIRS fellows have published more than 40 research abstracts and papers in astrobiology, with the majority containing student authors, received grant awards in excess of $1 million dollars, and two MIRS research projects have been included in NASA missions: the 2012 NASA Mars Science Laboratory (Prabhakar Misra, Howard University), observation time on the Kepler Space Telescope (Don Walter, South Carolina State University), and received attention by the world press for a model of Planetary Habitability (Abel Mendez, University of Puerto Rico, Arecibo). The successes of the MIRS program supports NASA's mission in education and have been published and presented at national conferences and described in the National Research Council's 2007 assessment of the NASA Astrobiology Institute. In 2010 a MIRS supported undergraduate, Dyana Lukas from Diné College, received an award in the AbSciCon Student Poster Competition in which most competitors were graduate students. Through the MIRS program, astrobiology research and education has taken root within MSIs exposing hundreds of Hispanic, African American and Native American students and faculty to this interdisciplinary field of science.

The high return on investment can be attributed to the NASA Astrobiology Program's decision to share leadership and accountability with the community stakeholders. In 2005, NAI partnered with Tennessee State University and the Minority Institute Astrobiology Collaborative (MIAC) to manage the program from within the minority community it serves. MIAC is a virtual collaboration of faculty from minority institutions focused on astrobiology, http://www.miac-coe.com/ . In 2010, the United Negro College Fund Special Programs (UNCFSP) Corporation continued the management of the MIRS program. Sine 2014, the program has been managed internally by the NASA Astrobiology Institute.

The diversity of students entering graduate research in astrobiology and the level of astrobiology research on MSI campuses is expected to grow substantially. The hope is that the success of participation in the MIRS program, for both students and faculty, will advance to enhance and sustain the capability of minority serving institutions to conduct astrobiology-related research and education.