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Preview of Award 1608576 - Annual Project Report

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Federal Agency and Organization Element to Which Report is submitted:	4900
Federal Grant or Other Identifying Number Assigned by Agency:	1608576
Project Title:	IT-C: Differences and Deficits Affecting Women STEM Faculty: Creating a Framework for Change at a Rural Public University
PD/PI Name:	Maeve L McCarthy, Principal Investigator Stephen H Cobb, Co-Principal Investigator Paula J Waddill, Co-Principal Investigator Echo H Wu, Co-Principal Investigator Robin Q Zhang, Co-Principal Investigator
Recipient Organization:	Murray State University
Project/Grant Period:	05/01/2016 - 04/30/2019
Reporting Period:	05/01/2016 - 04/30/2017
Submitting Official Of other than PD\PI):	Maeve L McCarthy Principal Investigator
Submission Date:	04/20/2017
Signature of Submitting Official (signature shall be submitted in accordance with agency specific instructions)	Maeve L McCarthy

Accomplishments

* What are the major goals of the project?

Many factors related to the underrepresentation of women in STEM disciplines can be conceptualized as falling into two primary categories: deficit and difference factors. Deficit factors are structural obstacles and mechanisms in the workplace that lead to both formal and informal exclusion of female faculty. Difference factors are characteristics internal to the individual that lead to gender disparities, including differences in men's and women's goals, outlook, and behavior. We hypothesize that deficit and difference factors manifest differently at a rural public institution. The major goal of the project is to evaluate this hypothesis, and to put into action and create a framework for positive changes. We will (a) review existing policies and data to determine if changes to them can positively impact women in STEM; (b) collect new data through surveys and interviews; (c) conduct site-visits to other ADVANCE institutions (University of Western Washington, University of New Hampshire and University of West Florida); and (d) invite nationally recognized external speakers to campus to inform and educate our administration and our entire campus community. Building upon this project and several significant recent change agents including the new MSU Strategic Initiatives Plan and its implementation and the commitment of our new president, MSU is the institution that can be a strong model for change in the status of women in STEM at rural regional universities.

* What was accomplished under these goals (you must provide information for at least one of the 4 categories below)?

Major Activities:

Major Activity #1: Identify the pattern of representation at Murray State in STEM disciplines. This involves working with Human Resources, Institutional Research and Office of Institutional Diversity, Equity and Access.

Major Activity #2.: Learn about other policies and programs. This primarily involved working with the ADVANCE community external to Murray State.

Major Activity #3: Sustainable Mentoring Program.

External Evaluator Visit: Susan Wiediger, SIU Edwardsville conducted a formative external evaluation in September. Details are in the Products section.

Specific Objectives:

Major Activity #1-Objective 1: Policy & Program Review. Policy review was conducted this year by co-PI Robin Zhang.

Major Activity #1-Objective 2: Analysis of Existing Data. This analysis was conducted by PI Maeve McCarthy.

Major Activity #1-Objective 3: Interviews. Interviews of male and female STEM faculty at all ranks were conducted by co-PI Echo Wu.

Major Activity #1-Objective 4: Survey. The climate survey was designed by co-PI Paula Waddill and implemented by the Cornell Survey Research Institute.

Major Activity #2. -Objective 1: Site Visits. Paula Waddill and Maeve McCarthy visited University of West Florida.

Major Activity #2. -Objective 2: Workshops. Joan Herbers (Ohio State) and Lydia Villa-Komaroff each presented ADVANCE Seminars to the MSU community. They also conducted workshops for small groups of STEM women.

Major Activity #2. -Objective 3. Meetings at MSU. The ADVANCE Internal Advisory Board

and External Advisory Board were created [MM1] .

Major Activity #3 -Objective 1 & 2. Peer-mentoring circles were created and assessed.

[MM1]Membership?

Significant Results:

Major Activity #1-Objective 1: Policy & Program Review. Dr. Zhang presented results to the Internal Advisory Board, including a review of a previous campus climate survey conducted by the President's Commission on Diversity & Inclusion, a comparison of our policies using the AIM Work-Life Policy Matrix and an analysis of our approach to job advertisements. This led to the development of a new recruiting website.

Major Activity #1-Objective 2: Analysis of Existing Data. Dr. McCarthy presented results to the Internal Advisory Board, including a breakdown of our gender distribution by college, rank and STEM vs. non-STEM. She also presented analysis of search data which demonstrated that the number of qualified women applicants was low in STEM fields. This led to discussion of how we could improve this and the recruiting website is due to this discussion.

Major Activity #1 - Objective 3: Interviews. Dr. Wu interviewed 22 faculty with a view to identifying themes that could guide our question development for the climate survey. Although the interviews were informative, no new themes were identified for the climate survey from the interviews. Dr. Wu has presented this work at the 9th annual conference of Understanding Interventions in March 2017.

Major Activity #1 - Objective 4: Survey. Dr. Waddill designed a survey that included questions from other ADVANCE institutions as well as new items with a view to allowing future comparisons with non-rural as well as rural institutions. The survey was available February 15-March 17 to 519 full-time faculty. There were 315 completed responses (61%) and 58 partial surveys (11%). Preliminary summary data is attached. The analysis of the survey will be conducted over the next year.

Major Activity #2. - Objective 1: Site Visits. University of West Florida is finishing a PAID award. We learned about their climate surveys, workshops, mentoring lunches and other activities. We spent a considerable amount of time discussing how to institutionalize ADVANCE at regional comprehensive universities like UWF and MSU.

Major Activity #2. - Objective 2: Workshops. See Objectives.

Major Activity #2. - Objective 3. Meetings at MSU. The ADVANCE PI team met once or twice a month to discuss our goals and how we were working to achieve them. The ADVANCE Internal Advisory Board met four times during the project year. Co-PI Steve Cobb played an integral role here as the Dean of the Jones College of Science, Engineering and Technology and a formal member of the Internal Advisory Board. From his dual-position, he was able to advocate for our project in an effective manner. The External Advisory Board met twice via Google Hangouts.

Major Activity #3 - Objective 1 & 2. Peer-mentoring circles based on those that have been carried out at Ohio State University and North Carolina State University were created. Three facilitators were recruited: Barbara Cobb, Terry Derting and Claire Fuller. They received training from Christine Grant (NCSU). Three circles were created with 7-8 women faculty in the sciences at all ranks from a variety of departments. Faculty were

not placed in circles with facilitators from their department. The circles met 10 times and were evaluated using a survey and open discussion. We expect to present a poster at the 2017 ADVANCE conference on this subject.

Key outcomes or other achievements:

***What opportunities for training and professional development has the project provided?**

The workshops and mentoring circles have provided professional development for women in STEM at Murray State.

***How have the results been disseminated to communities of interest?**

An oral presentation was given at the Understanding Interventions conference in San Antonio, TX. Two poster presentations were given at the Sigma Xi conference and the Leadership Launch women's program, both at Murray State.

***What do you plan to do during the next reporting period to accomplish the goals?**

We plan to continue policy review. We will update the data from Institutional Research. We hope to write a paper regarding the survey interviews. We will analyze the data from the climate survey with a view to making recommendations in the fall to the Internal Advisory Board. We will conduct a site-visit to University of Western Washington, a rural regional comprehensive that received a CATALYST award a number of years ago. We will continue the seminars and workshops by inviting two speakers to campus next year. Regular meetings of the ADVANCE PI team, the Internal Advisory Board and the External Advisory Board will continue. The peer-mentoring circles will continue again next year.

Supporting Files

Filename	Description	Uploaded By	Uploaded On
Female Percentages 2013-15.pdf	Percentages of female STEM faculty at MSU based on data from Institutional Research. Presented to Internal Advisory Board 9/2016.	Maeve McCarthy	04/13/2017
ADVANCE_PolicyReview11_15_2016.pdf	Review of policies at Murray State, benchmark institutions, comparable universities and ADVANCE institutions. Conducted by Robin Zhang based on AIM Work-Life Policy matrix. Presented to Internal Advisory Board 11/2016.	Maeve McCarthy	04/14/2017
Search Data 2013-15.pdf	Search data for STEM faculty at MSU based on data from the Office of Institutional Diversity, equity and Access. Presented to Internal Advisory Board 1/2017.	Maeve McCarthy	04/14/2017
ADVANCE Faculty Survey - initial Advisory Board presentation handout 3- 28-17.pdf	Preliminary data from the climate survey. Presented to Internal Advisory Board 3/2017.	Maeve McCarthy	04/14/2017

Products

Books

Book Chapters

Inventions

Journals or Juried Conference Papers

Wu, E. H., Waddill, P., McCarthy, M., Zhang, R. Q., & Cobb, S. (2017). Perceptions on recruitment and retention of faculty in a rural institution: Initial findings from an NSF ADVANCE project on STEM women. 9th Conference on Understanding Interventions that Broaden Participation in Science Careers. Status = PUBLISHED; Acknowledgment of Federal Support = Yes, Peer Reviewed = Yes; OTHER: <http://www.understanding-interventions.org/>

Licenses

Other Conference Presentations I Papers

Maeve McCarthy, Paula Waddill, Echo Wu, Robin Zhang and Steve Cobb (2017). Murray State University ADVANCE. Leadership Launch. Murray, KY. Status = PUBLISHED; Acknowledgement of Federal Support = Yes

Maeve McCarthy, Paula Waddill, Echo Wu, Robin Zhang and Steve Cobb (2017). Murray State University ADVANCE. Murray State - UT Martin Sigma Xi Research Symposium. Murray, KY. Status = PUBLISHED; Acknowledgement of Federal Support = Yes

Other Products

Evaluation Instruments.

Susan Wiediger, Southern Illinois University Edwardsville visited in September 2016 to conduct a formative external evaluation. It is available on our website www.murraystate.edu/advance

Other Publications

Patents

Technologies or Techniques

Thesis/Dissertations

Websites

MSU ADVANCE

<http://www.murraystate.edu/advance>

Provides information about the activities of the Murray State ADVANCE project

Supporting Files

Filename	Description	Uploaded By	Uploaded On
MSU_Advance_evaluationreport_Fall2016.pdf	Evaluation Report by Susan Wiediger, SIU Edwardsville	Maeve McCarthy	04/13/2017

Participants/Organizations

What individuals have worked on the project?

Name	Most Senior Project Role	Nearest Person Month Worked
McCarthy, Maeve	PD/PI	4
Cobb, Stephen	Co PD/PI	0
Waddill, Paula	Co PD/PI	1
Wu, Echo	Co PD/PI	1
Zhang, Robin	Co PD/PI	2
Cobb, Barbara	Faculty	1
Derting, Terry	Faculty	1
Fuller, Claire	Faculty	1

Full details of individuals who have worked on the project:

Maeve L McCarthy

Email: mmccarthy@munaystate.edu

Most Senior Project Role: PD/PI

Nearest Person Month Worked: 4

Contribution to the Project: Dr. McCarthy serves as PI for the project, coordinating all aspects of the program including setting the agenda for and leading the team meetings, Internal Advisory Board meetings, and External Advisory Board meetings. She has planned and hosted the evaluator visit and two speaker visits. The speakers conducted both seminars and workshops which Dr. McCarthy coordinated. She recruited facilitators and participants for the Mentoring Circles program and did much of its preliminary administration. She participated in a site visit to University of West Florida. She works with Accounting, Dining Services, and Tech Support to ensure the grant project is administratively supported by Murray State. She conducted much of the analysis of data provided by Institutional Research to determine gender patterns amongst the STEM & SBES faculty. She conducted further analysis on data from the Office of Institutional Diversity, Equity and Access to determine gender patterns in STEM & SBES search pools. She has presented reports to the Internal Advisory Board at every meeting and has presented two posters on MSU ADVANCE this year. She worked with Dr. Waddill and the other team members on the development and testing of the survey implemented by Cornell Survey Research Institute. It was largely due to the publicity that she generated for the survey that the participation rate was so high.

Funding Support: None

International Collaboration: No

International Travel: No

Stephen H Cobb

Email: scobb@murraystate.edu

Most Senior Project Role: Co PD/PI

Nearest Person Month Worked: 0

Contribution to the Project: Dr. Cobb's contribution to the project includes participation in team planning meetings, membership on the campus ADVANCE Advisory Board, meeting external speakers who visit campus for workshops and presentations, and attendance at grant-sponsored campus presentations and events. As one of six academic deans on the MSU campus, Dr. Cobb is uniquely positioned to communicate the goals and plans of the ADVANCE project to multiple constituencies. These include the President, Provost, other academic deans and program directors, and campus support personnel. As dean of the Jones College of Science, Engineering and Technology, Dr. Cobb is well-positioned to serve as an advocate for the ADVANCE grant to faculty in the STEM disciplines, and is able to ensure broad exposure and communication of ADVANCE initiatives to those faculty most affected by ADVANCE considerations. As the project matures, Dr. Cobb will also be in a position to provide a broad campus overview of how particular recommendations might be received and implemented, and will serve as a liaison between the PIs and campus leadership on how best to realize long-lasting institutional improvements.

Funding Support: None

International Collaboration: No

International Travel: No

Paula J Waddill

Email: pwaddill@murraystate.edu

Most Senior Project Role: Co PD/PI

Nearest Person Month Worked: 1

Contribution to the Project: In addition to meeting regularly with the grant team and the Advisory Board, Dr. Waddill participated in the Mentor Facilitator Training and the mentoring circle receptions. She was also responsible for developing the evaluation surveys to measure Circle participants' satisfaction with the mentoring activities. She also met with the program evaluator and participated in a site visit to the University of West Florida to discuss our program, to learn about their program, and to gather information and insights that could be used to improve and facilitate our ADVANCE grant activities. Dr. Waddill had the primary responsibility for developing the university-wide faculty survey. These development activities included gathering and selecting items from existing surveys, writing new items, devising response criteria and metrics, organizing and formatting, editing, seeking and incorporating feedback, shepherding the survey and related materials (e.g., invitation and reminder email texts) through the Murray State IRB approval process, and coordinating survey administration with the Cornell Survey Research Institute. Once the survey period closed, she also assumed primary responsibility for data analysis and conducted a preliminary analysis of data related to sample characteristics.

Funding Support: None

International Collaboration: No

International Travel: No

Echo H Wu

Email: ewu@murraystate.edu

Most Senior Project Role: Co PD/PI

Nearest Person Month Worked: 1

Contribution to the Project: Dr. Wu participated in regular team meetings, external evaluator meetings, Internal Advisory Board meetings, mentoring training, and hosted the external evaluator and the external speakers. Dr. Wu conducted the preliminary interviews of faculty, designing questions and consent forms. She received IRB approval for the interviews. Dr. Wu contacted over 60 faculty members through emails, and consequently conducted 22 personal interviews. Each interview was 50-70 minutes in length. She analyzed the interview transcripts, and shared the results with the team. In March 2017, Dr. Wu presented at San Antonio, TX, during the 9th Understanding Intervention annual conference, representing the team to share our research with colleagues from other institutions, and learned a great

deal about other NSF and NIH project. Dr. Wu is currently working on a research paper to report the interview project.

Funding Support: None

International Collaboration: No

International Travel: No

Robin Q Zhang

Email: qzhang@murraystate.edu

Most Senior Project Role: Co PD/PI

Nearest Person Month Worked: 2

Contribution to the Project: Dr. Zhang led the policy review component of the project as pertain to Objective #1. Policies and programs related to work-life, tenure and promotion, professional and leadership development, and faculty recruitment was reviewed. The review included 23 ADVANCE institutions, Murray State, and 32 institutions identified as our benchmark institutions or similar to Murray State in some aspect. The results of the review identified several policies we could work on. Dr. Zhang participated in team meetings, Internal Advisory Board meetings, mentoring training and hosting external speakers. She reviewed and commented on campus climate survey questions. She also represented the team at the NSF meeting for ADVANCE grantees, received information on NSF expectations and team obligations, and learned from other ADVANCE institutions.

Funding Support: None

International Collaboration: No

International Travel: No

Barbara Cobb

Email: bcobb@murraystate.edu

Most Senior Project Role: Faculty

Nearest Person Month Worked: 1

Contribution to the Project: As the facilitator for one of the mentoring circles, Dr. Cobb participated in training and decision-making in designing and scheduling the mentoring sessions. She prepared notes and questions for each session, and, when appropriate, provided information those members needed or requested, including campus data on issues related to women and literature related to topics discussed. She led discussions at each session, ensuring that all circle members felt comfortable participating, their voices were heard and ideas shared. Dr. Cobb made sure that participants addressed each topic and stayed on topic as much as possible. At the same time, she encouraged circle members to raise questions or concerns on any topic of importance to them and made decisions about the best time for addressing those concerns. She encouraged more senior faculty to share their experiences and suggestions with more junior faculty. She informed the circle members of any on-campus speakers or other events that were related to women's issues or issues raised in our meetings, while also raising awareness of changes that have occurred on-campus that result in new issues for incoming faculty that we then explore. Dr. Cobb provided support and contacts for circle members as needed and appropriate.

Funding Support: None

International Collaboration: No

International Travel: No

Terry Derting

Email: tderting@murraystate.edu

Most Senior Project Role: Faculty

Nearest Person Month Worked: 1

Contribution to the Project: As the facilitator for one of the mentoring circles, Dr. Derting participated in training and decision-making in designing and scheduling the mentoring sessions. She prepared notes and questions for each session, and, when appropriate, provided information those members needed or requested, including campus data on issues related to women and literature related to topics discussed. She led discussions at each session, ensuring that all circle members felt comfortable participating, their voices were heard and ideas shared. Dr. Derting made sure that participants addressed each topic and stayed on topic as much as possible. At the same time, she encouraged circle members to raise questions or concerns on any topic of importance to them and made decisions about the best time for addressing those concerns. She encouraged more senior faculty to share their experiences and suggestions with more junior faculty. She informed the circle members of any on-campus speakers or other events that were related to women's issues or issues raised in our meetings, while also raising awareness of changes that have occurred on-campus that result in new issues for incoming faculty that we then explore. Dr. Derting provided support and contacts for circle members as needed and appropriate.

Funding Support: None

International Collaboration: No

International Travel: No

Claire Fuller

Email: cfuller@murraystate.edu

Most Senior Project Role: Faculty

Nearest Person Month Worked: 1

Contribution to the Project: As the facilitator for one of the mentoring circles, Dr. Fuller participated in training and decision-making in designing and scheduling the mentoring sessions. She prepared notes and questions for each session, and, when appropriate, provided information those members needed or requested, including campus data on issues related to women and literature related to topics discussed. She led discussions at each session, ensuring that all circle members felt comfortable participating, their voices were heard and ideas shared. Dr. Fuller made sure that participants addressed each topic and stayed on topic as much as possible. At the same time, she encouraged circle members to raise questions or concerns on any topic of importance to them and made decisions about the best time for addressing those concerns. She encouraged more senior faculty to share their experiences and suggestions with more junior faculty. She informed the circle members of any on-campus speakers or other events that were related to women's issues or issues raised in our meetings, while also raising awareness of changes that have occurred on-campus that result in new issues for incoming faculty that we then explore. Dr. Fuller provided support and contacts for circle members as needed and appropriate.

Funding Support: None

International Collaboration: No

International Travel: No

What other organizations have been involved as partners?

Name	Type of Partner Organization	Location
University of West Florida	Academic Institution	Pensacola, FL

Full details of organizations that have been involved as partners:

University of West Florida

Organization Type: Academic Institution

Organization Location: Pensacola, FL

Partner's Contribution to the Project:

Other: Site Visit

More Detail on Partner and Contribution: UWF hosted a visit by Paula Waddill and Maeve McCarthy on March 2-4, 2017. We spent March 3 in a series of meetings learning about the many aspects of their PAID award. Their experience as a regional comprehensive university with an ADVANCE award was particularly relevant to our experience.

What other collaborators or contacts have been involved?

Susan Wiediger, SIU Edwardsville, External Evaluator

Christine Grant, North Carolina State University, Trained facilitators for mentoring circles

Joan Herbers, Ohio State University, Seminar speaker and workshop leader

Lydia Villa-Komaroff, Retired, Seminar speaker and workshop leader

Members Internal Advisory Board Call Murray State employees)

Robert Davies, President

Rena Duncan, Provost

Tim Todd, COB

Steve Cobb, JCSET

Staci Stone, CHFA

Tony Brannon, HSA

Cami Duffy, IDEA

Kathy Farmer, Faculty Regent

Joyce Gordon, HR

Susana Bloomdahl, PCDI

Members External Advisory Board

Amy Cox, Paducah Tilghman & MSU Chemistry alumna

Christine Grant, North Carolina State University

Joan Herbers, Ohio State University

Mary Anne Holmes, University of Nebraska Lincoln

Lauren Schmidt Martin, Appriss & MSU Math/CS alumna

Administrative Assistant

Susanne D'Angelo, Mathematics & Statistics

Impacts

What is the impact on the development of the principal discipline(s) of the project?

Several activities and findings during the first year of our project have made and will likely continue to make an impact on the STEM and SBES disciplines, the principal fields of our project.

- 1) Results from our institutional data collection show underrepresentation of female faculty in multiple departments, especially those in the Jones College of Science, Engineering and Technology, and in the Department of Computer Science and Information Systems. The findings have been disseminated to campus leadership via the Internal Advisory Board. The results have reinforced the awareness, informed the stakeholders, and may prompt proactive measures to hire more female faculty in STEM and SBES disciplines.
- 2) We conducted a policy review of Murray State, institutions similar to Murray State, and ADVANCE institutions, on work- life, tenure and promotion, professional and leadership development, and recruitment. The results have identified several areas where we could benefit from a new policy, new interpretation of existing policy, or information. We identified the expansion of the tenure clock, parental leave, and information for prospective employees as areas we will work on. These changes will likely impact the retention and recruitment of female faculty in STEM and SBES.
- 3) Our three Mentoring Circles have brought together about 20 STEM and SBES female faculty to discuss topics of mutual interests every two weeks. The mentoring circles have built and are likely to continue build professional collaboration and social network among the participants, a vital ingredient for success at a rural and geographically isolated institution such as Murray State University.
- 4) We have brought on campus two prominent advocates and experts of diversity in the sciences: Dr. Joan Herbers and Dr. Lydia Villa-Komaroff. They have held small group workshops and public seminars, and met with the university leadership. They have helped educate the university community on gender diversity in the sciences and implicit bias, which has increased the awareness and helped to build consensus on advancing women in the sciences.
- 5) Our team traveled to the University of West Florida (UWF) to meet with their ADVANCE team and learn from their experience. The site visit will likely impact our effort to set priorities and our strategies to institutionalize our project. Money to support research, child care and paid parental leave were high priorities for UWF. We also learned that the Faculty Development Center would be a likely venue to continue mentoring and professional development activities for female faculty. We have invited the Director of our Faculty Development Center to join our Internal Advisory Board and get involved in our project.
- 6) We are conducting our campus climate survey and will have some preliminary results soon. The survey will help us understand the contributing factors of women's underrepresentation in STEM and SBES, which will in turn drive policy change.

In sum, through our ADVANCE project, we have shown to the university leadership and community the need to recruit and retain women faculty in STEM and SBES, we have identified a few policy and procedural changes that may be implemented, we have started to build a professional community for women faculty in the sciences, and we are in the process of learning specific factors that contribute to underrepresentation and possible ways to remove the obstacles through awareness and change. The advance of women faculty in science will result in higher productivity and better quality of work by female scientists at Murray State, which will directly advance the STEM and SBES disciplines involved.

What is the impact on other disciplines?

The majority of our findings and policy recommendations will likely to make an impact on other disciplines because any policy change will be campus wide. The policies that have a particular impact on women such as expansion of the tenure clock, parental leave, child care, etc., applies to all faculty. The university leadership is involved with the project as members of the Internal Advisory Board. Our project team have presented the Board with findings from several activities. The Board has identified some action items that are likely to make an impact on other disciplines, such as additional information in job ads and a webpage to distribute information about the community to prospective job seekers.

Our efforts to build a professional community of women faculty will also likely impact all women faculty on campus, because a group of STEM and SBES women who are actively involved in ADVANCE Mentoring Circles are also leaders and active participants of the Women Faculty Caucus, a group that is driving policy change for all women faculty. The overall

improvement of campus climate expected as the result of this project will help to advance all women on campus.

Our ADVANCE seminars are open to all faculty, staff, students and community members. They have increased the visibility of our project, enhanced the awareness of issues pertain to women's underrepresentation in the Sciences and diversity in general.

What is the impact on the development of human resources?

As the result of discussion between ADVANCE team, the Internal Advisory Board, and University Advancement, Murray State will set up a website for prospective job seekers and for retention of current faculty. The ADVANCE seminars, presentations by the team, climate survey, and Mentoring Circles all increase the awareness of the underrepresentation of women in STEM and implicit bias in hiring and performance evaluation. This will likely result in better recruitment and retention of women in STEM.

What is the impact on physical resources that form infrastructure?

Nothing to report.

What is the impact on institutional resources that form infrastructure?

Nothing to report.

What is the impact on information resources that form infrastructure?

Nothing to report.

What is the impact on technology transfer?

Nothing to report.

What is the impact on society beyond science and technology?

We anticipate the results of the climate study having an impact on the entire Murray State community. All full-time faculty, STEM and non-STEM, at all ranks, were invited to participate. More than 60% of the campus participated and we feel that this will provide valuable information about the recruitment and retention of all faculty.

Changes/Problems

Changes in approach and reason for change

Nothing to report.

Actual or Anticipated problems or delays and actions or plans to resolve them

Nothing to report.

Changes that have a significant impact on expenditures

We used \$1000 of the funds planned for the mentoring circle facilitators to hire Dr. Christine Grant (NCSU) to train the facilitators in guiding peer-mentoring discussions.

Significant changes in use or care of human subjects

Nothing to report.

Significant changes in use or care of vertebrate animals

Nothing to report.

Significant changes in use or care of biohazards

Nothing to report.

Special Requirements

Responses to any special reporting requirements specified in the award terms and conditions, as well as any award specific reporting requirements.

Nothing to report.