

2022

# Award 2017452 - Annual Project Report



## Project title:

**ADVANCE Adaptation: ASPIRED: Adaptations for Sustainable Policies and Increased recruitment Excellence in Diversity**

## Awardee:

University of Memphis

## NSF Program Officer Name

Dr. Erika Tatiana Camacho  
[ecamacho@nsf.gov](mailto:ecamacho@nsf.gov), Ph: (703) 292-2834

## Principal Investigator:

Dr. Esra Ozdenerol

## Co-Principal Investigators:

Dr. Stephanie Ivy  
Dr. Firouzeh Sabri  
Dr. Craig Stevens  
Dr. Amanda Rockinson-Szapkiw

## Senior Investigators:

Dr. Abby Parrill-Baker, Jacob Allen

## Program Coordinator:

Mekensie Ivy

## Project Assistant:

Rebecca Bingham



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## **1. ACCOMPLISHMENTS**

### **1.1 What are the major goals of the project?**

The major goals of this project are to adapt evidence-based strategies to change the institutional climate at UofM and increase gender equity in recruitment, hiring, retention, and advancement in STEM. We aim to address four problems identified by STEM women faculty: implicit bias, isolation, ambiguity and inequality in career advancement, and poor work-life integration. We have three interventions, each incorporating multiple strategies: UM-Intersect will improve awareness of diversity and inclusion best practices campus-wide to foster an inclusive, culturally responsive work environment through educating search committees, conducting focus groups, providing training on implicit bias using interactive theatre, and implementing department climate improvement workshops and grants; UM-Connect will improve social and professional connections to increase women faculty's sense of belonging and career advancement through mentoring, networking, and professional development opportunities; UM-Integrate will improve women faculty's satisfaction with their work-life-family integration by developing a culture that values personal, familial, and professional roles through policy awareness and development as well as work-family integration. ASPIRED will: provide support for women STEM faculty who are more likely than men STEM faculty to experience implicit bias, ambiguity and inequality in career advancement, feelings of isolation, lack of mentoring, and poor work/life/family integration; include the adaptation of department climate improvement workshops and grants, work/life integration grants, dual career policies and family friendly awareness task force; and facilitate the development of institutional support and structure to build an affirming and fair workplace for women and underrepresented groups. Additionally, broader participation will be encouraged at the UofM through opportunities to participate in UM-Connect STEM luncheons, that will increase networking and collaboration as well as exposure to minority STEM leaders and academic leaders of the region.

Our PI, Dr. Esra Ozdenerol, has participated in Deans and Chairs meetings as well as Faculty Senate meetings to present ASPIRED goals and programs to ensure broader participation and awareness on campus.

#### **1.1.1. Major activities**

We have hosted 14 meetings with our ASPIRED team and 12 meetings with our STRIDE team as well as two STRIDE workshops, one on April 6th and one on April 21st. We had an internal advisory meeting on April 28th and an external advisory meeting on May 4th. We had an external evaluators meeting on March 30th.

Under UM-Intersect:

STRIDE:

We were able to institutionalize our STRIDE workshop by collaborating with the Office for Institutional Equity to present these STRIDE workshops university wide as an alternative or in conjunction with OIE's search committee training. We continued with our STRIDE committee meetings and updated our literature and presentations/workshop materials to develop and share strategies for the proactive

recruitment of women faculty, especially underrepresented minority women and underrepresented groups with the ultimate goal of increasing the hiring, retention, and promotion of STEM women. The STRIDE committee continues with the 7 members from last reporting period: Drs. Esra Ozdenerol, Firouzeh Sabri, Joel Bumgardner, Laura Taylor, Amy Curry, and Chrysanthe Preza. From these meetings with our committee, we have finalized our STRIDE workshop as well as updated our STRIDE handbook to include COVID 19 guidelines.

#### DEPARTMENT CLIMATE IMPROVEMENT WORKSHOPS AND SURVEYS:

In Spring 2021, the ASPIRED team conducted a department climate survey and introduced the Department Climate Improvement Grant to all STEM departments to implement climate improvement projects. Examples of activities proposed by the departments include, but are not limited to, symposia or series, search committee training, bias awareness and reduction training, capacity building and networking. These interventions will focus on helping to create climates that are inclusive and responsive to the needs of women and URM faculty — potentially reducing feelings of isolation and reducing hostility and discrimination based on gender and/or minority status. We awarded \$1,000 annual grants to the following departments to improve department climate: Mathematical Science, CERI, Biological Science, Physics and Material Science, Electrical & Computer Engineering, Earth Science, Chemistry, Biomedical Engineering, Computer Science, and Civil Engineering.

#### INTERACTIVE THEATER SKETCHES "TIGER-LILLY COLLECTIVE":

ASPIRED's Tiger-Lilly Collective (TLC) theatre group joined the College of Arts and Sciences Chairs and Director meeting on May 10th to perform interactive sketches on department climate/implicit bias. TLC performances educate audiences by catching them off-guard and illustrating in real time and using common scenarios demonstrating how gender and implicit biases play out in their own lives. TLC actors are UofM students with Prof. Holly Derr, head of Directing Program, directing the interactive sketches. We will use the recordings of these performances for STRIDE and Climate Improvement Workshops.

#### STEM WOMEN FOCUS GROUPS:

As part of our research efforts, the ASPIRED team invited women STEM faculty to participate in a focus group to share their experiences working in STEM. We have hosted one focus group with the PIs of the project and one with volunteer faculty members. We will use the results of these focus groups for research purposes and to help inform the Interactive Theatre Workshops being developed by the Tiger-Lilly Collective.

#### WELCOME PACKET:

We have included our welcome packet for new employee orientations both on our website and in PDF format. This packet provides new employees and dual career candidates with resources such as getting started on campus, development opportunities, childcare, navigating Memphis and more.

Under UM-Connect:

#### STEM LUNCHEONS:

We have started our STEM luncheons in Fall 2021. The primary focus of the luncheons is to provide mentors and mentees participating in in the UM-Connect Women Mentoring Women program the opportunity to connect with one another and develop professionally. However, the luncheons also address the problems of isolation and ambiguity about career advancement expressed by the women faculty across UM STEM departments as faculty across the UM community and individuals with STEM expertise within the Memphis community. Our first STEM luncheon, which served as the kickoff for the UM-Connect Mentoring program, was on November 5, 2021, and invited Dr. Melissa McDaniels to speak about STEM mentoring. Since then, we have hosted Dr. Lisa Wolf-Wendel who spoke on Work-Life-Family Balance, Dr. Robin Selinger who spoke on Strategies for Success in Academic STEM careers, Dr. Terri Reed who spoke on Diversity, Equity and Implicit Bias and Dr. Jill Sible who spoke on Inclusive Learning Experiences for Student Success in STEM. The STEM luncheons provided mentors and mentees participating in the UM-Connect Mentoring program the opportunity to connect with one another and develop professionally. Our speakers are broadcast through Zoom to live and virtual audiences.

#### MENTORING:

The mentoring program welcomed Drs. Esra Ozdenerol, Abby Parrill-Baker and Tammy Haut Donahue as mentors and Drs. Anzhelika Antipova, Jessica Jennings, Stacey Labarre-Powell and Viktoriya Pleshkan as mentees. The members participated in a 4-week, 4-module self-paced training where mentors and mentees developed competencies to engage in an effective, culturally responsive mentoring relationship while improving STEM self-efficacy and identity. These training modules were available through Canvas to mentors and mentees who were accepted into the program and consisted of collaborative discussions and problem-based scenarios to socialize both the mentors and mentees to the peer mentoring process.

Under UM-Integrate:

#### INTEGRATE GRANTS:

UM Integrate has awarded five \$5000 grants that support faculty in research, professional development and/or work-family integration. The ASPIRED project was able to fund three of the five grants. We were able to institutionalize these grants by receiving funding from the Deans of the College of Arts and Sciences and College of Engineering to cover the remaining two grants. The grants were awarded to Dr. Kensha Clark from the Chemistry Department, Dr. Misty Freeman from Mathematical Science, Dr. Chrysanthe Preza from Electrical and Computer Engineering, Dr. Maryam Salehi from Civil Engineering and Dr. Kan Yang from Computer Science.

## DUAL CAREER TASKFORCE AND POLICY:

The Dual-Career Policy Taskforce works with the Provost's Office and Human Resources and includes representatives from these offices to formalize recommendations for programs and policies related to dual-family career services. The task force is working on creating a dual-career policy to aid in prospective faculty partner placement. The motion has already passed through the Faculty Senate to create a Dual-Career Policy and the actual policy is currently being drafted. We have drafted provisions for the Dual-Career Policy to submit to the Faculty Senate in the fall.

### 1.1.2. Specific Objectives

Under UM-Intersect:

Our objective is to decrease implicit bias and foster an inclusive, culturally responsive work environment. We would like to increase awareness and understanding of implicit bias, increase knowledge of how to improve diversity, and increase access to campus resources for new hires and faculty.

Under UM-Connect:

Our objective is to decrease isolation and increase women faculty's social (e.g., sense of community) connections. We would like to increase networking across departments and colleges; to increase interdisciplinary and community collaborations; to improve sense of belonging; to understand tenure and promotion policies, resources, and opportunities; and to increase prospects for career advancement (e.g., obtaining tenure, promotion, administration position).

Under UM-Integrate:

Our objective is to enhance work/life integration. We would like to have an understood, transparent, and consistent hiring protocol; to have positive views of dual career hires; to have increased awareness of parental leave and family friendly policies; to have increased participation for social networking events; and to have an increased satisfaction with work-life-family integration.

### 1.1.3. Significant results

Under UM-Intersect:

STRIDE:

We were able to institutionalize STRIDE by collaborating with the Office of Institution Equity to present STRIDE workshops university wide as an alternative or in conjunction with OIE's search committee training.

## DEPARTMENT CLIMATE IMPROVEMENT WORKSHOPS AND SURVEYS:

We awarded \$1,000 annual grants to the following departments to improve department climate: Mathematical Science, CERI, Biological Science, Physics and Material Science, Electrical & Computer Engineering, Earth Science, Chemistry, Biomedical Engineering, Computer Science, and Civil Engineering. There is a breakdown of each department's objectives and planned activities in the corresponding UM-Intersect products documents.

Under UM-Connect

#### STEM LUNCHEONS:

We were able to provide networking and learning opportunities for the STEM women on campus through 5 STEM luncheons that started in the Fall of 2021. Survey data was collected after each luncheon and analyzed. Results demonstrated that participants agreed that they would again participate in the luncheons and found them useful. They also rated the speakers and topics chosen highly. Finally, they agreed that the luncheons provided improved opportunities to collaborate and network; participants perceived an increased sense of belonging to the UofM STEM community after participation.

#### MENTORING:

We were able to implement UM-Connect's mentoring program this semester. The mentoring program welcomed Drs. Esra Ozdenerol, Abby Parrill-Baker and Tammy Haut Donahue as mentors and Drs. Anzhelika Antipova, Jessica Jennings, Stacey Labarre-Powell and Viktoriya Pleshkan as mentees. The members participated in a 4-week, 4-module self-paced training where mentors and mentees developed competencies to engage in an effective, culturally responsive mentoring relationship while improving STEM self-efficacy and identity. These training modules were available through Canvas to mentors and mentees who were accepted into the program and consisted of collaborative discussions and problem-based scenarios to socialize both the mentors and mentees to the peer mentoring process. Pre and post survey data have been collected and analyzed. Both the mentors and mentees agreed to be satisfied with their career goal progress, professional development opportunities, promotion opportunities, and sense of STEM community at the University of Memphis prior to entering the mentoring program; however, satisfaction ratings in these areas for both the mentor and mentees were higher after participation in the program. Similarly, mentor and mentees rated their mentoring competencies across all areas as high to moderate prior to participating in the mentoring program. However, after participation in the program, competency ratings for both the mentor and mentees improved after program participation.

Under UM-Integrate:

#### INTEGRATE GRANTS:

UM Integrate has awarded five \$5000 grants that support faculty in research, professional development and/or work-family integration. Pre and post survey data

have been collected and analyzed. Participant survey respondents (n = 4), after participation in the program, reported improved satisfaction with their career goal progress, professional development opportunities, and promotion prospects. While their perceptions that work interference with family slightly increased, their strain-based work interference with family and family interference with work improved. Moreover, when asked about the program, 100% (n = 4) of the post survey respondents agreed or strongly agreed that they would again apply for the grant and that the program was overall beneficial. All of the respondents (n = 4, 100%) agreed or strongly agreed that the proposal application, implementation of the grant, and final reporting for the grant was easy.

#### DUAL CAREER POLICY TASKFORCE:

We have drafted provisions for the Dual-Career Policy to submit to the Faculty Senate in the fall. You can find a copy of these provisions in the UM-Integrate products document.

##### **1.1.4. Key outcomes or Other achievements**

Our STRIDE workshop has been institutionalized and is offered as an alternative and in conjunction with OIE's search committee training.

We have institutionalized our Integrate Grants by receiving funding from the Dean of the College of Arts and Sciences and the College of Engineering.

We have sent out a University Wide Climate Survey on May 10th and have received 465 responses.

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

During Spring 22, we started offering STRIDE workshops. Our STRIDE workshop is an hour-long, peer-to-peer interactive workshop intended for search committees to learn about best practices to ensure a fair and equitable search process. We have offered 2 of these workshops so far with plans for continuation in the fall. We have trained 33 faculty so far.

We have also offered 6 STEM luncheons over the course of the year. Our first STEM luncheon, which served as the kickoff for the UM-Connect Mentoring program, was on November 5, 2021, and invited Dr. Melissa McDaniels to speak about STEM mentoring. Since then, we have hosted Dr. Lisa Wolf-Wendel who spoke on Work-Life-Family Balance, Dr. Robin Selinger who spoke on Strategies for Success in Academic STEM careers, Dr. Terri Reed who spoke on Diversity, Equity and Implicit Bias and Dr. Jill Sible who spoke on Inclusive Learning Experiences for Student Success in STEM. The STEM luncheons provided mentors and mentees participating in the UM-Connect Mentoring program the opportunity to connect with one another and develop professionally. Our speakers are broadcast through Zoom to live and virtual audiences. We offered five integrate grants that support faculty in research, professional development and/or work-family integration.

We offered department climate improvement grants to STEM departments. Examples of activities proposed by the departments include, but are not limited to, symposia or series, search committee training, bias awareness and reduction training, capacity building and networking. These interventions helped to create climates that are inclusive and



responsive to the needs of women and URM faculty — potentially reducing feelings of isolation and reducing hostility and discrimination based on gender and/or minority status.

### 1.3 Have the results been disseminated to communities of interest? Please provide details.

We have shared our progress so far with our internal and external advisory boards. Our internal advisory committee members are: Karen Weddle-West, Vice President for Student Academic Success & Director of Diversity Initiatives; and Robin Poston, Dean of Graduate School. Dr. Henry Kurtz was our third member, but he retired. We are currently in search for a third member. Our external advisory committee members are: Kimberly Bailey, Chief Information Officer for the City of Memphis; Nisha Powers, President of Powers Hill Design; Jim Fitzhenry, CEO of Vistage; Bobbi Wells, Vice President of Safety & Air Operations for FedEx; Dr. Jodi O'Brien, PI/Director of ADVANCE at Seattle University.

We also sent a newsletter with all our activities to the university community. We have created a website for STRIDE workshops with all our STRIDE materials which is open to the public.

We have provided a preliminary report of our university wide climate survey to the Provost's office. We will disseminate our summary results through the ASPIRED website.

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

#### UM-Intersect

Our TLC group will continue to perform their interactive theater sketches on department climate/implicit bias in year 3. We will integrate TLC sketches into our STRIDE workshops. We will also improve STRIDE with updated literature. We will evaluate the impact of STRIDE on search committees.

We will also award another round of Department Climate Improvement Grants to implement climate improvement projects that will focus on helping to create climates that are inclusive and responsive to the needs of women and URM faculty—potentially reducing feelings of isolation and reducing hostility and discrimination based on gender and/or minority status. We will conduct department climate workshops with our interactive theater sketches.

#### UM-Connect

We will also continue our STEM luncheons. We hope to expand participation by inviting male STEM faculty to participate as well as male STEM speakers.

#### UM-Integrate

We will award another round of Integrate Grants. Grants will be awarded to support faculty in seeding promising new areas of research, restarting research after time away, providing support during significant family events (such as childbirth or death in family), providing seed funding for early career faculty so that they may be more competitive when pursuing larger-scale funding, and providing funding for professional development that will enhance faculty's career trajectory.

## 2. PRODUCTS

- *ASPIRED Website*  
<https://www.memphis.edu/aspired/>  
 The ASPIRED website is a collection of information about the ASPIRED program, the ASPIRED team, our resources and research, and the welcome packet for new employees.
- *ASPIRED climate and diversity survey*
- *STRIDE workshop materials (STRIDE handbook, demographic handout)*
- *ASPIRED Newsletter*  
[https://us20.campaign-archive.com/?e=\\_\\_test\\_email\\_\\_&u=7d55767fd17b8ac5d7d009550&id=11ba709ff4](https://us20.campaign-archive.com/?e=__test_email__&u=7d55767fd17b8ac5d7d009550&id=11ba709ff4)
- *ASPIRED Website*  
<https://www.memphis.edu/aspired/>
- *STEM Women Story Maps*  
<https://storymaps.arcgis.com/stories/9910306203fa4db396c4125d89884dc5>  
 This is a prototype of our STEM Women Story Maps.
- *External Evaluators Report*
- *Internal Evaluators Report*

### Other Conference Presentations / Papers

- Amanda Rockinson-Szapkiw (2022). *An examination of the dimensionality and validity of a STEM mentoring competency scale for women..* AERA Annual Meeting. San Diego California. Status = PUBLISHED; Acknowledgement of Federal Support = Yes
- Dr. Craig Stewart, Prof. Holly Derr, and Dr. Esra Ozdenerol (2022). *Using Interactive Theatre as a Rhetoric Intervention to Spark Change in STEM: A Case Study of Implicit Bias Training.* Rhetoric Society of America. Baltimore, MD. Status = OTHER; Acknowledgement of Federal Support = Yes

### Other Products

- *Audio or Video Products.*  
 We have shared the script to our Interactive Theater Sketches in the products. We can share the MP3/Video recording upon request. We will disseminate the video recording through YouTube and our ASPIRED Website.

### Supporting Files

Filename	Description
RSA2022_InteractiveTheatre.pdf	This is a presentation made at the Rhetoric Society of America Conference in Baltimore, MD May 28, 2022 about the TLC's Interactive Theater Sketches.

Filename	Description	
UM-Connect Products.pdf	This file contains products from ASPIRED UM-Connect activities. This includes: the mentoring course materials and all the STEM luncheon brochures.	Esra Ozdenerol
UM-Integrate Products.pdf	This file contains products from ASPIRED UM-Integrate activities. This includes reports from our Integrate Grants recipients and the draft of the provisions for the Dual Career Policy.	Esra Ozdenerol
UM-Intersect Products.pdf	This file contains products from ASPIRED UM-Intersect activities. This includes: focus groups questions, welcome packet links, TLC's Interactive Theater Sketches script and brochure, and a list of objectives and planned activities per department for the Department Climate Improvement Grants.	Esra Ozdenerol

### 3. PARTICIPANTS and OTHER COLLABORATING ORGANIZATIONS

#### 3.1 What individuals have worked on the project?

<p><b>Esra Ozdenerol</b>  <b>Email:</b> eozdenr1@memphis.edu  <b>Most Senior Project Role:</b> PD/PI  <b>Nearest Person Month Worked:</b> 2  <b>Contribution to the Project:</b> Dr. Ozdenerol served as the Principal Investigator for and Director of the ASPIRED project. She was responsible for overseeing implementation of three ASPIRED initiatives; supervising project staff, especially the program coordinator, graduate assistant and student workers; working with the external evaluators/advisors and coordinating their visits; creating content for the ASPIRED project website to support and disseminate project activities; writing publications and reporting directly to NSF. She also advised UM-Intersect: Implementation of STRIDE committee and STRIDE material development for UM context and collaborate with consultants. She moderated STRIDE workshops. She developed Story Maps for STEM women faculty; collaborated and oversaw the development and implementation of the interactive theatrical sketches and assisted with departmental climate workshops and department climate grants. She joined the PI meeting in Washington D.C. as the PI of this project.  <b>Funding Support:</b> N/A  <b>Change in active other support:</b> No  <b>International Collaboration:</b> No  <b>International Travel:</b> No</p>
<p><b>Stephanie S Ivey</b>  <b>Email:</b> ssalyers@memphis.edu  <b>Most Senior Project Role:</b> Co PD/PI</p>

**Nearest Person Month Worked: 1**

**Contribution to the Project:** Helped oversee the INTEGRATE Grant program. Participated in the ASPIRED team efforts and workshops, review grant applications, and related tasks. Developed and distributed project-related communications to Herff College of Engineering.

**Funding Support:** N/A

**Change in active other support:** No

**International Collaboration:** No

**International Travel:** No

**Amanda Rockinson-Szapkiw**

**Email:** rcknsnsz@memphis.edu

**Most Senior Project Role:** Co PD/PI

**Nearest Person Month Worked: 1**

**Contribution to the Project:** Co-developed and analyzed the data for the University Climate survey, STEM luncheon surveys, and Mentoring Surveys. Participated in the formation and is co-chairing the Dual Career Policy committee. Created drafts of all quantitative evaluation instruments and the mentorship related content and modules for the mentor and mentee's online training modules. Oversaw the activities of mentors and mentees in the mentoring program. Joined PI at the PI meeting in Washington D.C.

**Funding Support:** N/A

**Change in active other support:** No

**International Collaboration:** No

**International Travel:** No

**Firouzeh Sabri**

**Email:** fsabri@memphis.edu

**Most Senior Project Role:** Co PD/PI

**Nearest Person Month Worked: 1**

**Contribution to the Project:** Helped lead the Integrant Grant Program. Participated in the ASPIRED team efforts and workshops, handled Integrate grant related issues, and related tasks.

**Funding Support:** N/A

**Change in active other support:** No

**International Collaboration:** No

**International Travel:** No

**Craig O Stewart**

**Email:** Craig.Stewart@memphis.edu

**Most Senior Project Role:** Co PD/PI

**Nearest Person Month Worked: 1**

**Contribution to the Project:** Developed qualitative interview protocol to be used in the STEM women focus groups, hosted focus groups, managed IRB protocol/modifications, worked with Prof. Holly Derr on writing interactive theatre sketches/workshops.

**Funding Support:** N/A

**Change in active other support:** No

**International Collaboration:** No

International Travel: No

#### **4. IMPACT: What is the impact of the project? How has it contributed?**

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

###### UM-INTERSECT

The goal of UM-Intersect is to decrease implicit bias and foster an inclusive, culturally responsive work environment. Once implemented, we would like to have an increased awareness and understanding of implicit bias, an increased knowledge of how to improve diversity and create an inclusive, culturally responsive and respectful work environment, and an increased access to campus resources for new hires and faculty.

###### STRIDE:

We have attempted to obtain these goals by instituting a STRIDE workshop that focuses on improving diversity and decreasing implicit bias during the hiring process by training the search committees. We have trained 33 faculty members so far, and will continue to offer these workshops in the next academic year.

###### TLC:

We also have created an interactive theater sketch that creates awareness of implicit bias by catching the audience off-guard and illustrating in real time and using common scenarios that demonstrate how gender and implicit biases play out in their own lives.

###### DEPARTMENT CLIMATE IMPROVEMENT GRANTS:

We have awarded Department Climate Improvement Grants to STEM departments to help create climates that are inclusive and responsive to the needs of women and URM faculty — potentially reducing feelings of isolation and reducing hostility and discrimination based on gender and/or minority status.

###### WELCOME PACKET:

We have increased access to campus resources for new hires and faculty by creating a welcome packet with information about campus and the surrounding Memphis area.

###### UM-CONNECT

The goal of UM-Connect is to decrease isolation and increase women faculty's social connections (e.g., sense of community). Once implemented, we would like to have increased networking across departments and colleges; an improved sense of belonging; an understanding of tenure and promotion policies, resources, and opportunities; an increased prospect for career advancement (e.g., obtaining tenure, promotion, administration positions).

### STEM LUNCHEONS

We have achieved this goal by hosting our STEM luncheons and Mentoring program. We have had 50 people attend our STEM luncheons via zoom and 40 participate in person. Pre and post survey data have been collected and analyzed. Results demonstrated that participants agreed that they would again participate in the luncheons and found them useful. They also rated the speakers and topics chosen highly. Finally, they agreed that the luncheons provided improved opportunities to collaborate and network; participants perceived an increased sense of belonging to the UofM STEM community after participation.

### MENTORING

We had 7 total members in the mentoring program this semester. Pre and post survey data have been collected and analyzed. Both the mentors and mentees agreed to be satisfied with their career goal progress, professional development opportunities, promotion opportunities, and sense of STEM community at the University of Memphis prior to entering the mentoring program; however, satisfaction ratings in these areas for both the mentor and mentees were higher after participation in the program. Similarly, mentor and mentees rated their mentoring competencies across all areas as high to moderate prior to participating in the mentoring program. However, after participation in the program, competency ratings for both the mentor and mentees improved after program participation.

### UM-INTERSECT

The goal of UM-Integrate is to enhance work/life integration. Once implemented, we would like to have understood, transparent, consistent hiring protocol; positive views of dual career hires; increased awareness of parental leave and family friendly policies; increased participation for social networking and family friendly events; and increased satisfaction with work-life-family integration. ASPIRED will provide support for STEM women faculty, who are more likely than men STEM faculty to experience implicit bias, ambiguity and inequality in career advancement, feelings of isolation, lack of mentoring, and poor work/life/family integration; include the adaptation of department climate improvement workshops and grants, work/life integration grants, dual career policies and family friendly awareness task force; and facilitate the development of institutional support and structure to build an affirming and fair workplace for women and underrepresented groups. The ASPIRED strategies will serve as an exportable best-practice model with impacts far beyond the UM. Tiger Lilly Collective theater group will be transferable to other similar institutions with large minority populations. Diversifying the faculty and improving the climate in

STEM departments at UM is an important step towards closing the achievement gap by improving retention (e.g., URM student and faculty) and ultimately enhancing the STEM workforce in the Memphis region and beyond.

#### INTEGRATE GRANTS:

We have awarded five integrate grants that support faculty in research, professional development and/or work-family integration. The ASPIRED project was able to fund three of the five grants. We were able to institutionalize these grants by receiving funding from the Deans of the College of Arts and Sciences and College of Engineering to cover the remaining two grants.

Pre and Post survey data have been collected and analyzed. Participant survey respondents (n = 4), after participation in the program, reported improved satisfaction with their career goal progress, professional development opportunities, and promotion prospects. While their perceptions that work interference with family slightly increased, their strain-based work interference with family and family interference with work improved. Moreover, when asked about the program, 100% (n = 4) of the post survey respondents agreed or strongly agreed that they would again apply for the grant and that the program was overall beneficial. All of the respondents (n = 4, 100%) agreed or strongly agreed that the proposal application, implementation of the grant, and final reporting for the grant was easy.

#### **4.2 What is the impact on other disciplines?**

All STEM disciplines and all university faculty and staff took our annual university wide climate survey on May 10, 2022. We shared our preliminary report with the Provost's office and will disseminate summary results on our website at the beginning of fall 2022. You can find this preliminary report under supporting files in accomplishments. We will use the summer to analyze and evaluate the survey responses.

We brought awareness to the ASPIRED project and its mission to the disciplines other than STEM in the university. We trained STRIDE workshop participants from all disciplines in the university.

The practices that we develop through the ASPIRED project can be applied not only in the university setting, but also in a real world, industry setting. The hiring of diverse leadership is important for all aspects of life, not just in a university setting.

#### **4.3 What is the impact on the development of human resources?**

Human resources is involved in multiple aspects of our project. We have an HR representative on our dual career policy taskforce. There are negotiations on development of a position of a Dual Career Program Coordinator that will be housed either in HR or in the Career Services Department.

#### **4.4 What was the impact on teaching and educational experiences?**

Although the student body population at UofM is majority female (59%), the number of women STEM faculty is much smaller (19%). The number of URM women in

STEM faculty positions is even smaller (5.4% full professors, 7.5% assistant professors, and 3.9% associate level positions). The lack of representation in leadership positions could cause challenges for STEM women students and URM STEM women students. If this project is successful in the hiring and retention of more STEM women faculty and URM STEM women faculty, there will be a positive impact on student success and UofM would have a better ability to serve its diverse student body as well as the Memphis and Mid-South region. Not only does this project impact student development, but also the wellbeing of STEM women faculty. If more STEM women faculty are hired, there would be less feelings of isolation and a greater sense of belonging. These changes could alter the whole climate of UofM to create a more inclusive and fair workplace and learning environment.

This year, we have implemented our STEM luncheons. These luncheons not only offer a networking opportunity, but also a mentoring and professional development opportunity. Our first STEM luncheon hosted Dr. Melissa McDaniels who spoke on STEM mentoring. Our second STEM luncheon hosted Dr. Lisa Wolf-Wendel who spoke on Work-Life-Family Balance. Our third STEM luncheon hosted Dr. Robin Selinger who spoke on Strategies for Success in Academic STEM Careers: from Getting Started to Achieving Tenure and Beyond. Our fourth STEM luncheon hosted Dr. Teri Reed who spoke on Developing a Research/ Scholarship for Career Advancement from Mid to Late Career. Our fifth STEM luncheon hosted Dr. Jill Sible who spoke on Promoting Excellence & Inclusion in STEM classrooms. We also provided professional development opportunities to our mentors and mentees through the mentoring program. The program consisted of 4 modules. The first module is on Introduction to the Mentoring Relationship with the objectives to: Define mentoring, Identify the benefits of participating in a mentoring relationship, Identify the benefits of mentorship training, Identify the characteristics, roles, responsibilities, and competencies of the mentor and mentee, and Develop a philosophy of mentorship. The second module is on The What, When, How, & Why of The Mentoring Relationship with the objective to: Identify the purpose of your mentoring relationship (i.e., Why), Understand how to develop an individual development plan (i.e., What), Identify the importance of scheduling regular meetings (i.e., How and When), Identify the importance of aligning relational expectations (i.e., How and When), Identify the structure of a mentoring meeting (i.e., How and When), Identify a note taking protocol, and Develop a mentoring relationship agreement. The third module is on Competencies for the Mentoring Relationship with the objective to: Identify relational and interpersonal competencies to build and maintain trust and Identify competencies and functions needed to facilitate and engage in the mentee's instrumental and psychosocial development. The fourth module is on Ethics, Evaluation, and Endings in a Mentoring Relationship with the objective to: Discuss ethical behavior for a mentoring relationship, Define diversity, inclusion, culture, and cultural responsiveness, Identify how diversity affects the mentoring relationship, Identify strategies to foster an inclusive and culturally responsive mentoring relationship, Identify the importance of reflection and evaluation in a mentoring relationship, and Identify necessary components to ensure a good ending to the mentoring relationship.

We have also offered 2 STRIDE workshops that have trained 33 faculty members, including the administrators, on Hiring During COVID, How Diversity Aligns with



Excellence, Intersectionality, Diversity and Inclusion, Implicit Bias, and Case Studies about Best Practices for Search Committees.

#### **4.5 What is the impact on physical resources that form infrastructure?**

This year, we have used the facilities on campus to host our STEM luncheons. Due to COVID, most ASPIRED activities are hosted virtually through Zoom or Microsoft Teams.

#### **4.6 What is the impact on institutional resources that form infrastructure?**

If we can obtain full institutional support, we would like to have an ADVANCE office building where students and faculty can go and talk to someone about the ASPIRED program or learn about resources that are available to STEM women and URM STEM women.

#### **4.7 What is the impact on information resources that form infrastructure?**

We have readily made available our STRIDE workshop materials that include: a STRIDE Handbook that breaks down the best practices for a search committee; a Demographic Handout with a breakdown of demographics of students and faculties on a national, local, and university level; and a guide for search committee's on hiring during COVID.

#### **4.8 What is the impact on society beyond science and technology?**

Even though our project specifically focusses on STEM women, the STEM field is not the only place that bias and inequity is found. The same principles and programs that we use to promote the advancement of STEM women could easily carry over into the advancement of women in general or underrepresented minority groups. And although our project is focused on an academic setting, the same programs we will be implementing could be implemented in a non-academic setting.

## **5 CHANGES/PROBLEMS**

### **5.1 Changes in approach and reason for change**

We have replaced our external evaluation team with members from the Center for Research and Educational Policy (CREP) at the beginning of our second year, Fall 2021. After the delay in submitting an external evaluation report last year and due to evaluators retiring, the evaluators and our team felt it was best to replace the external evaluators. Please see the new evaluator's CV and MOU under special requirements. Our University Administration has changed. We have a new President who is engaged in our ASPIRED project programs. One of our team members, Dr. Abby Parrill-Baker accepted the Provost position. We are excited about this development that her support to the project and institutional transformation now will continue from the Provost's office.

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

Due to senior personnel change, we had a delay in presenting the Interactive Theater Sketches. Dr. Jacob Allen who was our director of the Interactive Theater Sketches became a Department Chair. Due to his chair obligations, he deferred his position to Prof. Holly Derr at the beginning of our second year, Fall 2021. We were able to present at the end of the Spring 2022 semester at the Chairs and Directors meeting for the College of Arts and Sciences.

**5.3 Change in primary performance site location**

Due to COVID, our STRIDE workshops are offered only through zoom and our STEM luncheons are offered both in person and through zoom.