

Professional Development Workshops for Faculty on Addressing Implicit Bias in Computer Science Education

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Abstract: The "Understanding Implicit Bias" workshops were offered to Science, Technology, Engineering, and Mathematics (STEM) faculty at an urban minority-serving undergraduate institution with a focus on addressing the gender gap in computer science. The workshops aimed to raise awareness of implicit (unconscious) biases and provide practical strategies for addressing them, fostering a more inclusive classroom environment. Analysis of pre- and post-survey responses indicated an increase in participants' awareness of implicit biases in their discipline and a greater openness to taking steps to address them, suggesting the workshops' potential impact on promoting inclusive teaching practices.

Keywords: professional development, implicit bias, computer science, undergraduate education

INTRODUCTION

The under-representation of women in computer science continues to be a persistent national challenge. Despite ongoing efforts to close the gender gap in STEM fields, the proportion of computer science bachelor's degrees awarded to women remains around 20%. From 2015 to 2020, the New York City College of Technology (City Tech) MSEIP (Minority Science Engineering Improvement Program), funded by the U.S. Department of Education, implemented various strategies to increase the participation of women and minorities in computer science. One particularly successful strategy was a faculty professional development workshop on "Understanding Implicit Bias," which aimed to facilitate a shift in the gender equity dialogue. Using materials like "Breaking the

Bias Habit¹” developed by WISELI: University of Wisconsin-Madison Inclusion in Science & Engineering Leadership Institute, participants explored implicit bias, its effects on classroom dynamics, and developed actionable plans to create a more inclusive and supportive environment for all students.

This article examines the outcomes of faculty workshops designed to raise awareness of implicit bias² in STEM education. Through an analysis of pre- and post-survey responses from participants, the study explores shifts in their understanding of implicit bias and its potential impact on teaching practices. The aim is to assess how these workshops may influence faculty perceptions and actions towards fostering more inclusive and equitable learning environments in STEM classrooms. Additionally, the article seeks to provide a model for future professional development initiatives aimed at enhancing teaching and learning in STEM disciplines.

LITERATURE REVIEW

Studies have shown that hidden bias across workplaces remains pervasive (Newman et al., 2025), with real effects on recruitment and retention impacting areas such as income, hiring decisions, and career advancement opportunities (McCormick, UNC Executive Development, 2016; Oberai & Anand, 2018). Implicit bias training has been widely promoted as a strategy to help individuals recognize and mitigate these biases, fostering more equitable and inclusive environments. Such training is particularly critical in fields like healthcare, where biases not only perpetuate systemic inequities but also directly impact the quality of care and services provided to diverse populations (Marcelin et al., 2019; Carnes et al. 2023).

However, research has raised important questions about the effectiveness of implicit bias training. A review by Moller et al. revealed that many unconscious bias interventions fail to produce lasting behavioral changes or significant shifts in Implicit Association Test (IAT) scores (Moller, et al. 2023). This suggests that while these interventions may raise awareness, they often fall short of achieving meaningful, long-term outcomes. An article in *Harvard Business Review* titled “Unconscious Bias Training That Works” stresses the importance of embedding practical strategies into such training programs. Without actionable steps, training programs are often ineffective (Gino & Coffman, 2021).

Additionally, studies such as the one by Pritlove et al. caution against an over-reliance on implicit bias training as a standalone solution. They highlight the danger of focusing solely on individual biases, which can obscure the broader systemic, structural, and political barriers that sustain

¹ WISELI no longer offers this workshop. For information, contact wiseli@engr.wisc.edu.

² In this article, we use the following terms interchangeably: hidden bias, implicit bias, and unconscious bias.

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inequities (Pritlove, et al. 2019). While implicit bias training may help shift individual attitudes and behaviors, it is essential to recognize its limitations and the complexity of the issues at hand. Addressing these challenges requires a dual approach that combines individual-level efforts with systemic reforms. Without this balance, there is a risk of oversimplifying the problem and placing undue responsibility on individuals rather than institutions, which ultimately hold the power to enact lasting structural change.

Understanding Implicit Bias and Its Role in Education

Implicit biases, or unconscious perceptions, can create (intended or unintended) barriers for certain groups in their academic advancement (Harrison-Bernard et al., 2020; Beasley & Fischer, 2012). Rooted in stereotypes, prejudices, or discriminatory views, these biases shape generalized expectations that hinder equitable outcomes (Llorens et al., 2021). For instance, Copur-Gencturk et al. examined how teachers' implicit biases about the mathematical abilities of girls and students of color can negatively affect their confidence and performance in STEM disciplines (Copur-Gencturk, 2023).

Given the profound influence of faculty attitudes and actions on students' academic and social experiences, training to address implicit biases is essential (Harrison-Bernard et al., 2020; Rodriguez et al., 2021). Cultural change within academic institutions demands a multi-level approach, starting with faculty engagement (Carnes et al., 2021). Creating a fair and inclusive environment requires intentional actions to dismantle inequities perpetuated by biases and stereotypes. Without addressing these ingrained ideologies, meaningful cultural shifts will remain unattainable (Carnes et al., 2021; Llorens et al., 2021).

Professional development workshops have emerged as pivotal in promoting high impact practices in education. These workshops aim to raise faculty awareness of implicit biases and their impacts, fostering reflective self-perception. The concept of "bias literacy," introduced by the American Association for the Advancement of Science (AAAS), offers a framework for identifying and mitigating the effects of implicit bias. Through bias literacy, educators can better understand how preconceived notion or stereotypes influence their decision-making, behavior, and interactions with students, often resulting in inequitable treatment in academic settings (Carnes et al. 2012).

Educators increasingly adopt asset-based pedagogy and culturally responsive teaching to complement their understanding of implicit bias, building on their awareness of unconscious stereotypes and their potential impact on teaching practices. Recognizing implicit bias is a crucial first step in fostering inclusivity, but it must be paired with actionable strategies to create meaningful change. Asset-based pedagogy provides a pathway for addressing bias by emphasizing the strengths, cultural backgrounds, and life experiences that students bring to the classroom, rather than focusing on perceived deficits. This approach affirms the diverse knowledge and skills of students, fostering a more inclusive and engaging learning environment (Graham et al. 2013).

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Culturally responsive teaching extends this effort by tailoring curricula and instructional strategies to reflect and resonate with the diverse backgrounds of students. It prioritizes creating inclusive learning experiences that address the needs of underrepresented and marginalized groups, fostering a sense of belonging and connection. Together, these methodologies not only help educators counteract the effects of implicit bias but also represent a broader shift toward equitable practices in computer science education. By embracing these approaches, educators can enrich the learning environment, enhance student engagement, and promote greater participation and success in STEM fields among diverse populations (Graham et al., 2013).

METHODOLOGY

Workshop Design

From 2016 to 2019, a series of professional development workshops for faculty were designed and conducted to promote inclusive teaching practices. These workshops combined implicit bias training with professional development in pedagogy, aimed to foster inclusive teaching and learning within the computer science disciplines. They specifically targeted faculty in computing-related fields, including mathematics, computer science, computer systems, computer engineering, and other STEM areas.

Faculty participation in the workshops was encouraged through an open call and department chairs' recommendations, allowing for both self-selection and broader outreach. Separate sessions were created to address the specific needs and contexts of part-time and full-time faculty, ensuring the content was relevant and impactful for each group.

- **Part-time Faculty:** The workshops focused on developing high-impact pedagogies for fostering an inclusive classroom environment. They were delivered over two consecutive days before the semester began to accommodate participants' schedules.
- **Full-Time Faculty:** The workshops addressed both classroom and pedagogical practices, extending beyond to examine departmental practices. Held at the beginning, mid-term, and end of the semester, these sessions encouraged reflection and sustained engagement, to foster long-term impact on departmental climate and culture.

Core Workshop Components

1. ***Understanding Implicit Bias — Changing the Gender Equity Equation:*** This session introduced the "Breaking the Bias Habit" workshop developed by WISELI. Participants examined implicit bias habits and crafted action plans to support a positive classroom climate. The session included an activity featuring the "Gender-Leader Implicit Association Test

(IAT)" by Project Implicit³, which facilitated self-reflection on unconscious associations. This foundational component set the framework for subsequent pedagogical and discipline-specific discussions.

2. ***Best Practices in Pedagogy for an Inclusive Classroom:*** This session centered on effective teaching strategies to engage and support women in computing. It emphasized high-impact practices to foster an inclusive and supportive classroom setting. Participants collaborated in small groups to share their experiences and brainstorm actionable approaches for creating supportive learning environments.
3. ***Problem-Solving and Computational Thinking:*** With a focus on the "Computer Science for All" initiative, this session highlighted the importance of integrating computer science education across disciplines to broaden its accessibility and inclusivity. Participants were encouraged to develop strategies such as lesson plans, projects, or initiatives aimed at improving the learning environment. Discussions also addressed best practices for promoting accessible learning spaces, including crafting inclusive syllabi and interdisciplinary curricula.

Throughout the workshops, participants shared best practices within their disciplines, fostering a collaborative exchange of ideas to address biases in teaching and learning.

The workshop concluded with participants creating a strategy or action plan to cultivate change in their teaching practices. Deliverables included lesson plans, projects, or initiatives aimed at improving the classroom climate and promoting an inclusive classroom in STEM disciplines with a focus in supporting and transforming computer science education.

Participants were tasked with identifying one actionable change in their pedagogical practices as the deliverable. Part-time faculty presented their deliverables mid-semester. Full-time faculty shared their deliverables during the final workshop at semester's end.

To evaluate the workshops, participants completed anonymous pre- and post-surveys using unique codes to link responses while maintaining anonymity. These surveys measured changes in participants' awareness and perceptions related to implicit bias. For the data analysis, we used a two-tailed paired-sample t-test to determine whether there were statistically significant differences between the pre- and post-survey responses.

³ Project Implicit, Implicit Association Test (IAT) <https://implicit.harvard.edu/implicit/takeatest.html>

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Demographics of Workshop Participants

Full-Time Faculty Participants (2016–2017)

- Total Participants: 25 (12 in 2016, 13 in 2017)
- Affiliation: 84% from New York City College of Technology; 16% from Borough of Manhattan Community College
- Departments: Mathematics (44%), Computer Science/Systems (40%), Computer Engineering (12%), Chemistry (4%)
- Gender: 48% male, 52% female
- Ethnicity: 52% Asian/Pacific Islander, 40% White/Caucasian, 8% Other

Part-Time Faculty Participants (2017, 2019)

- Total Participants: 45 (23 in 2017, 22 in 2019)
- Affiliation: 93% from New York City College of Technology; 7% from Borough of Manhattan Community College
- Departments: Mathematics (38%), Computer Systems (49%), Computer Engineering (13%)
- Gender: 62% male, 38% female
- Ethnicity: 27% Asian/Pacific Islander, 33% White/Caucasian, 22% African American, 9% Hispanic/Latino, 2% Native American

RESULTS

A survey was administered both before and after the workshop series to the full-time faculty participants. Using unique codes to link responses, we were able to match 22 participants and measure changes between their pre- and post-survey responses. A copy of the full-time faculty survey is available in Appendix A.

Full-Time Faculty Survey Responses Part I: Gender Bias Awareness					
(1=Strongly Disagree and 7=Strongly Agree)	Mean (Pre-Survey)	Standard Deviation (Pre-Survey)	Mean (Post-Survey)	Standard Deviation (Post-Survey)	Two-tailed paired sample t- test p value
1. Decreasing automatic stereotypic associations is a valuable goal	5.91	1.74	6.82	0.50	0.027
2. Decreasing automatic stereotypic associations benefits society as a whole	5.95	1.79	6.77	0.43	0.053

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3. To what extent do you think that you are vulnerable to unknowingly discriminating against women?	3.95	1.91	4.36	1.76	0.107
4. How aware are you to your own subtle expression of gender bias?	4.64	1.40	5.27	1.12	0.100
5. How aware are you to subtle forms of gender bias in the world around you?	5.29	1.68	5.95	1.05	0.022
6. There is no gender bias in my discipline.	3.59	2.36	3.32	2.01	0.367
7. There is no gender bias in my department.	4.77	2.16	4.41	2.15	0.401

Table 1: Full-time faculty survey results from 2016 and 2017. Part I: Gender Bias Awareness (22 matched pre- and post-survey responses).

Full-Time Faculty Survey Responses Part II: Self-Efficacy and Outcome Expectations					
(1=Strongly Disagree and 7=Strongly Agree)	Mean (Pre-Survey)	Standard Deviation (Pre-Survey)	Mean (Post-Survey)	Standard Deviation (Post-Survey)	Two-tailed paired sample t- test p value
1. Action: Recognize when gender bias is occurring during a work-related interaction (e.g., department meeting).					
• I am confident that I can do this.**	5.18	1.56	6.14	1.04	0.001
• I would benefit from doing this.	5.62	1.36	6.38	0.80	0.010
• It would be risky for me to do this.	3.71	1.62	3.81	1.78	0.785
• I engage in this action on a regular basis.	3.95	1.91	4.14	1.59	0.705
2. Action: Speak about gender equity in my workplace to my colleagues.					
• I am confident that I can do this.	5.14	1.82	5.45	1.68	0.452
• I would benefit from doing this.	5.77	1.19	5.57	1.08	0.407
• It would be risky for me to do this.	3.81	1.78	4.10	2.19	0.510
• I engage in this action on a regular basis.	3.62	1.88	4.14	1.82	0.134
3. Action: Replace a response based on gender stereotypes with a non-stereotypic response.					
• I am confident that I can do this.**	5.09	1.63	5.91	1.11	0.021
• I would benefit from doing this.	5.95	1.20	5.95	1.16	1.000
• It would be risky for me to do this.	3.00	2.00	3.14	1.88	0.826
• I engage in this action on a regular basis.	4.00	1.84	4.43	1.78	0.131

4. Action: Adopt the perspective (in the first person) of a woman who is being hired or evaluated for a leadership position.					
• I am confident that I can do this.	5.32	1.78	6.09	1.34	0.016
• I would benefit from doing this.	6.14	1.28	6.05	1.16	0.540
• It would be risky for me to do this.	2.29	2.03	2.86	1.77	0.192
• I engage in this action on a regular basis.	4.10	1.73	4.29	1.85	0.592
5. Action: Challenge a personnel decision if I think it has been influenced by gender stereotypes.					
• I am confident that I can do this.	4.19	2.20	5.23	1.63	0.014
• I would benefit from doing this.	5.77	1.54	5.52	1.08	0.397
• It would be risky for me to do this.	4.10	2.02	3.86	1.90	0.634
• I engage in this action on a regular basis.	3.14	2.15	3.57	1.89	0.406

Table 2: Full-time faculty survey results from 2016 and 2017. Part II: Self-Efficacy and Outcome Expectations (22 matched pre- and post-survey responses).

A survey was administered both before and after the workshop series to the part-time faculty participants. Using unique codes to link responses, we were able to match 34 participants and measure changes between their pre- and post-survey responses.

Part-time Faculty Survey Responses Gender Bias Awareness					
(1=Strongly Disagree and 7=Strongly Agree)	Mean (Pre-Survey)	Standard Deviation (Pre-Survey)	Mean (Post-Survey)	Standard Deviation (Post-Survey)	Two-tailed paired sample t- test p value
1. Decreasing automatic stereotypic associations is a valuable goal	5.91	1.75	6.44	0.93	0.136
2. Decreasing automatic stereotypic associations benefits society as a whole	6.06	1.56	6.38	1.02	0.303
3. To what extent do you think that you are vulnerable to unknowingly discriminating against women?	3.74	1.90	3.76	1.60	0.932
4. How aware are you to your own subtle expression of gender bias?	5.00	1.84	4.91	1.58	0.784
5. How aware are you to subtle forms of gender bias in the world around you?	5.24	1.50	5.53	1.33	0.278
6. There is no gender bias in my discipline.	3.91	2.21	3.97	2.22	0.783
7. There is no gender bias in my department.	4.27	2.04	4.38	1.95	0.659

Table 3: Part-time faculty survey results from 2017 and 2019. Gender Bias Awareness: 34 matched pre- and post-survey responses.

DISCUSSION

Comparing the pre- and post-survey responses for full-time faculty, we observed significant differences in several key areas related to recognizing and addressing implicit bias. Notable changes were identified in faculty perceptions on the following survey items, where the p-values from the two-tailed paired-sample t-tests were less than 0.05 ($p < 0.05$), indicating statistically significant differences:

- Decreasing automatic stereotypic associations is a valuable goal.
- How aware are you to subtle forms of gender bias in the world around you?
- Action: Recognize when gender bias is occurring during a work-related interaction (e.g., department meeting). (I am confident that I can do this.)
- Action: Replace a response based on gender stereotypes with a non-stereotypic response. (I am confident that I can do this.)
- Action: Adopt the perspective (in the first person) of a woman who is being hired or evaluated for a leadership position. (I am confident that I can do this.)
- Action: Challenge a personnel decision if I think it has been influenced by gender stereotypes. (I am confident that I can do this.)

In contrast, the part-time faculty showed no significant difference in their pre- and post-survey responses overall (large p-values $p > 0.1$). However, when we disaggregated the 2019 part-time responses by gender and explored the trends among the pre- and post-responses of 8 female and 8 male part-time participants, some noticeable patterns emerged. After the conclusion of the workshop, female part-time faculty generally rated their awareness of bias lower on most post-survey questions compared to the initial responses. In contrast, male part-time faculty rated their awareness of bias higher on the post-survey compared to the pre-survey (see Table 4). This shift in responses suggests that gender may influence how faculty self-assess their awareness of bias and perhaps how they engage with the topic of implicit bias, which could be an area for further exploration. Specifically, the questions where these differences were observed included:

- To what extent do you think that you are vulnerable to unknowingly discriminating against women?
- How aware are you to your own subtle expression of gender bias?
- How aware are you to subtle forms of gender bias in the world around you?
- There is no gender bias in my discipline.
- There is no gender bias in my department.

The gender-based differences in responses raises important questions about the extent to which the workshop may have resonated differently with male and female part-time faculty. Additionally, responses to the last two questions were lower among female faculty compared to their male

counterparts. This disparity suggests the need for further research to explore why these differences exist and how gender may influence faculty perceptions and their willingness to recognize and confront implicit bias.

Part-time Faculty Survey Responses Women versus Men Trend						
(1=Strongly Disagree and 7=Strongly Agree)	Women (N=8)			Men (N=8)		
	Pre	Post	Difference	Pre	Post	Difference
1. Decreasing automatic stereotypic associations is a valuable goal	6.13	6.38	0.25↑	6	6.88	0.88↑
2. Decreasing automatic stereotypic associations benefits society as a whole	6.25	6.25	0.00	5.88	6.75	0.88↑
3. To what extent do you think that you are vulnerable to unknowingly discriminating against women?	3.13	2.88	-0.25↓	3	3.13	0.13↑
4. How aware are you to your own subtle expression of gender bias?	5.5	4.75	-0.75↓	4.5	5.13	0.63↑
5. How aware are you to subtle forms of gender bias in the world around you?	5.88	5.75	-0.13↓	4.75	5.75	1.0↑
6. There is no gender bias in my discipline.	3.29	3.25	-0.04↓	4.88	5.88	1.0↑
7. There is no gender bias in my department.	3.71	3.5	-0.21↓	5	5.63	0.63↑

Table 4: Part-time faculty survey results disaggregated by gender (8 sets of pre- and post-responses by women and 8 sets by male part-time faculty).

Beyond the survey data, anecdotal feedback from participants highlighted a variety of responses and actions resulting from the workshop. While many participants acknowledged the gender disparity in computing fields and expressed a desire to bridge this gap, conversations around addressing potential biases often sparked defensiveness. Some faculty members initially rejected the notion that they might harbor biases, insisting that they treat all students equally. This response reflects how deeply ingrained biases can be, and how difficult it is to engage in these discussions without resistance. At times, the conversation shifted to concerns about "reverse discrimination" against men, particularly when discussing strategies to mitigate gender bias.

In one case, a male faculty member proposed randomized group assignments as an action plan to eliminate bias. However, this strategy contradicts research. Study suggests that in male-dominated STEM classrooms, intentionally grouping women together, where they represent the majority or are equally represented in group dynamics, is beneficial and can help create a positive "microenvironment" that empowers them (Dasgupta et al., 2015).

Despite these challenges and reservations, several meaningful changes emerged following the workshop. A male faculty member in the computer engineering department took the initiative to display posters featuring women in computing. This simple yet impactful gesture served as a reminder of the contributions of women to the field, offering visible role models and promoting a more inclusive environment within the department. Inspired by the workshop's emphasis on mentorship, a female part-time faculty member sought out mentorship for herself and also began mentoring female students. A part-time faculty member extended the impact beyond CUNY by researching women's enrollment and graduation data at another institution where she held a full-time position.

Notably, a male faculty member who had initially expressed concerns about these conversations being a form of "reverse discrimination" later became a strong advocate for supporting women in computing. Additionally, many faculty members introduced assignments and projects that encouraged students to explore personal interests and engage in creative expression. These efforts fostered more inclusive, student-centered, and asset-based learning environments in computing classes.

Overall, the workshop has had a tangible impact on participants, though varying levels of understanding and resistance highlight the complexity of addressing implicit bias in academia. While some faculty members embraced the ideas and strategies presented, others struggled with the concept of implicit bias and the potential for bias in their own actions. Further work is needed to ensure that all faculty members engage with these issues in a meaningful way, and that sustainable changes to classroom environments and teaching practices are made.

CONCLUSIONS

The under-representation of women in computing fields remains a persistent and significant challenge, one that demands targeted and thoughtful interventions at all levels of education. The faculty professional development workshop, "Understanding Implicit Bias to Change the Gender Equity Equation," was a crucial step in initiating a culture shift within computer science education. This workshop not only served as a professional development opportunity but also as a call to action for faculty to reflect deeply on their own teaching practices, departmental dynamics, and the broader institutional culture. By engaging faculty in discussions about implicit bias and gender equity, the workshop encouraged participants to take tangible steps toward fostering more inclusive classrooms and departments that support the success of all students, particularly women and other underrepresented groups.

While the workshop demonstrated the potential impact of faculty professional development in creating a more equitable learning environment, it also revealed the complexities of addressing long-held beliefs and behaviors. Many faculty members embraced the insights provided, yet the discussions surrounding bias and its effects on teaching and decision-making highlighted the ongoing

nature of this work. The resistance and defensiveness that some participants initially expressed, particularly in relation to their own biases, underscored the challenge of confronting such sensitive issues. Nonetheless, the workshop prompted meaningful reflection and action, with several faculty taking proactive steps to implement changes in their teaching approaches and classroom environments. However, it is clear that continuous effort and sustained engagement will be necessary to achieve lasting change in addressing gender disparities in computing. Beyond individual efforts, institutional dialogues are crucial for driving policy and systemic changes. These dialogues are essential for developing and implementing policies that reinforce a commitment to supportive and accessible learning spaces across the institution. Creating an environment where all students feel seen and heard and empowered requires not only individual reflection but also coordinated institutional action. The insights gained from this workshop can serve as a foundation for both faculty-driven and institutional-wide initiatives, acting as a catalyst for broader systemic change. By deepening faculty awareness and fostering ongoing institutional conversations, such initiatives can help drive lasting transformation that supports the advancement of women and other underrepresented groups in STEM fields.

IN MEMORIAM

We dedicate this paper to our cherished colleague, team member, and friend, Dr. Janet Liou-Mark, who passed away in September 2020. Her unwavering kindness, empathy, and dedication to supporting students and colleagues left a lasting impact on all who had the privilege of working with her. Her spirit continues to inspire us.

ACKNOWLEDGMENTS

This project was funded by a U.S. Department of Education Minority Science Engineering Improvement Program (MSEIP) grant # P120A150063 from 2015 – 2019.

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APPENDIX A (The survey was provided by WISELI <https://wiseli.wisc.edu> and adapted for New York City College of Technology MSEIP project.)



NEW YORK CITY COLLEGE OF TECHNOLOGY

Who? Me? Understanding Implicit Bias: A Workshop for Changing the Gender Equity Equation
Post-Survey

SECTION 1: CONSENT STATEMENT

You are being asked to participate in a Department of Education Minority Science and Engineering Improvement Program funded study titled "Curricular and Strategic Changes in Mathematics to Increase and Sustain the Participation of Women and Underrepresented Minority Students in Computer Science and Enhance Institutional STEM Education" to promote Bias Literacy, a term used by the American Association for the Advancement of Science (AAAS), as a way to enhance the institutional climate for students majoring in computing. This study examines opinions, beliefs, and equity self-efficacy. Should you choose to participate, it will take you approximately 15 minutes to complete this survey. To facilitate longitudinal analysis, your results will be linked to your future/past administrations of this survey via a unique identifier that you create. Because the researchers will have no way to link the identifier to you, your responses are anonymous, thus reducing or eliminating the risk of a breach of confidentiality.

Your participation in this survey is voluntary and you can withdraw from participation at any time by not answering the questions. If you have questions about this survey or how the data will be used, please contact the study director: [REDACTED]. If you have any questions about your rights as a research subject, please contact [REDACTED] Human Research Protection Program (HRPP) Coordinator at [REDACTED].

SECTION 2: ACROSTIC

Because you will be asked to complete this survey multiple time, we need to be able to match your responses across time in a way that does not identify you. To create your identifier please complete the following:

___ Mother's (or mother figure's) maiden name (first 2 letters only)

___ Father's (or father figure's) first name (first 2 letters only)

___ Last two digits of your cell phone number

SECTION 3: GENDER AND LEADERSHIP IMPLICIT-ASSOCIATION TEST (IAT)

Please go to the following American Association of University Women's website and take the 10 minute IAT using the following link: <http://www.aauw.org/article/implicit-association-test/>

Record your results here by circling one response:

Your data suggest [no association/slight association/moderate association/strong association] of [Male/Female] with Leader and [Female/Male] with Supporter, compared to [Female/Male] with Leader and [Male/Female] with Supporter.

SECTION 4: GENDER BIAS AWARENESS (PART I)

Statement	1	2	3	4	5	6	7
Decreasing automatic stereotypic associations is a valuable goal	Strongly disagree			Neither			Strongly agree
Decreasing automatic stereotypic associations benefits society as a whole	Strongly disagree			Neither			Strongly agree
To what extent are you personally concerned about your performance on the IAT?	Not at all concerned			Neither			Very concerned
To what extent do you think that you are vulnerable to unknowingly discriminating against women?	Not at all vulnerable			Neither			Very vulnerable
How aware are you to your own subtle expression of gender bias?	Not at all sensitive			Neither			Very sensitive
How aware are you to subtle forms of gender bias in the world around you?	Not at all sensitive			Neither			Very sensitive

Supported by a Department of Education MSEIP grant # P12BA150033
Survey provided by the WISELI at the University of Wisconsin in Madison

SECTION 5: SELF-EFFICACY AND OUTCOME EXPECTATIONS

Statement	Circle one						
	Strongly disagree			Neither			Strongly agree
Action: Recognize when gender bias is occurring during a work-related interaction (e.g., department meeting).							
I am confident that I can do this.	1	2	3	4	5	6	7
I would benefit from doing this.	1	2	3	4	5	6	7
It would be risky for me to do this.	1	2	3	4	5	6	7
I engage in this action on a regular basis.	1	2	3	4	5	6	7
Action: Speak about gender equity in my workplace to my colleagues.							
I am confident that I can do this.	1	2	3	4	5	6	7
I would benefit from doing this.	1	2	3	4	5	6	7
It would be risky for me to do this.	1	2	3	4	5	6	7
I engage in this action on a regular basis.	1	2	3	4	5	6	7
Action: Replace a response based on gender stereotypes with a non-stereotypic response.							
I am confident that I can do this.	1	2	3	4	5	6	7
I would benefit from doing this.	1	2	3	4	5	6	7
It would be risky for me to do this.	1	2	3	4	5	6	7
I engage in this action on a regular basis.	1	2	3	4	5	6	7
Action: Adopt the perspective (in the first person) of a woman who is being hired or evaluated for a leadership position.							
I am confident that I can do this.	1	2	3	4	5	6	7
I would benefit from doing this.	1	2	3	4	5	6	7
It would be risky for me to do this.	1	2	3	4	5	6	7
I engage in this action on a regular basis.	1	2	3	4	5	6	7
Action: Challenge a personnel decision if I think it has been influenced by gender stereotypes.							
I am confident that I can do this.	1	2	3	4	5	6	7
I would benefit from doing this.	1	2	3	4	5	6	7
It would be risky for me to do this.	1	2	3	4	5	6	7
I engage in this action on a regular basis.	1	2	3	4	5	6	7

SECTION 6: GENDER BIAS AWARENESS (PART II)

Statement	Strongly disagree			Neither			Strongly agree
There is no gender bias in my discipline.	1	2	3	4	5	6	7
There is no gender bias in my department.	1	2	3	4	5	6	7

SECTION 7: DEMOGRAPHICS

College: _____ Department: _____ Gender: ☐ Male ☐ Female

Ethnic Background (Check all that apply): ☐ African American ☐ Hispanic/Latino ☐ Asian/Pacific Islander
☐ Caucasian ☐ Native American ☐ Other

Tenure Status: ☐ Yes ☐ No Professorial Rank: ☐ Assistant Professor ☐ Associate Professor ☐ Professor

Number of Years Teaching: _____ Number of Years Teaching at Your Current Institution: _____