

# Reimagining a More Equitable Tenure System to Recruit and Support Faculty



**Dr. Christine S. Grant**  
**NSF Program Director: Broadening Participation in Engineering**  
**Professor of Chemical and Biomolecular Engineering, NC State University**

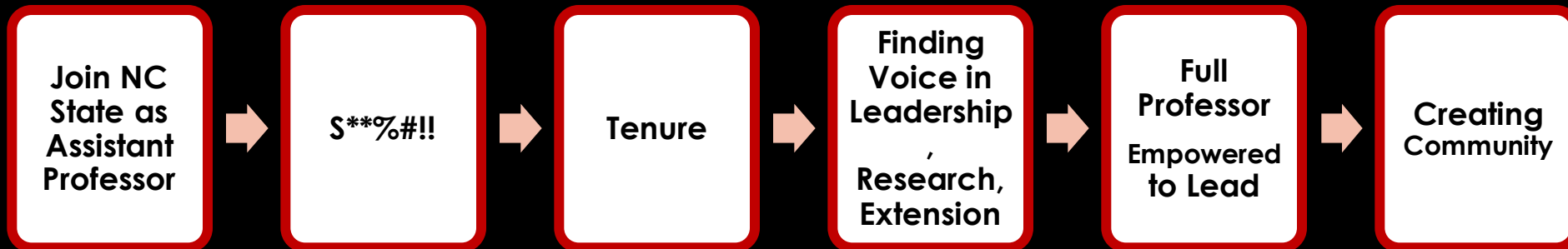


# Guiding Questions....

- How can the tenure process be demystified to support a more diverse and inclusive faculty?
- What are successful strategies and pathways to recruit and prepare URM faculty for the STEM Professoriate?
- What are some inclusive mentoring practices that can be leveraged to aid in transitioning from graduate school/postdocs?
- What are some evidence-based practices to aid STEM faculty in improving skills that enhance their scholar identity?
- How can we assist new faculty with balancing new demands and expectations?

Dr. Christine Grant

“Step into Your Highest Potential”



# Overcoming Barriers for Women of Color in STEM Fields

Emerging Research and Opportunities



Pamela M. Leggett-Robinson and Brandi Villa



## Rediscovering Our Original Selves: What Did We Leave Behind (and Pick Up) on the Journey to “Success”?

Book Chapter: by CS Grant

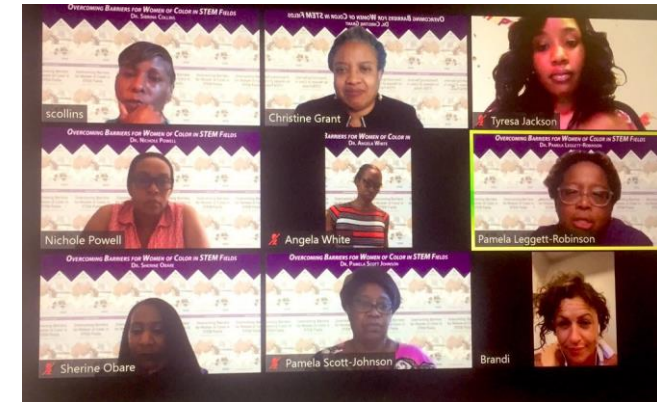
Editors: Pamela M. Leggett-Robinson (PLR Consulting) & Brandi Campbell Villa (Belay Consulting)

### LIVE BOOK REVEAL & TABLE TALK

FEATURING DR. PAMELA LEGGETT-ROBINSON,  
DR. BRANDI VILLA, DR. SIBRINA COLLINS,  
DR. ANGELA WHITE, TYRESA JACKSON,  
DR. SHERINE OBARE, DR. NICHOLE POWELL,  
DR. PAMELA SCOTT JOHNSON,  
AND DR. CHRISTINE GRANT

REGISTER IN ADVANCE: [HTTPS://BIT.LY/2Nu9FXT](https://bit.ly/2Nu9FXT)

SUBMIT QUESTIONS: [HTTPS://BIT.LY/2B9JKY9](https://bit.ly/2B9JKY9)



“After years of exposure to the concepts *of unconscious bias, micro-aggressions, inclusivity, and stereotype threat* (to name a few), the author reviewed the words penned over 20 years ago in her journals.

As she reviewed the harsh reality of a set of exchanges with leadership and colleagues, she realized that there were several elements of her journey that she had *suppressed*.

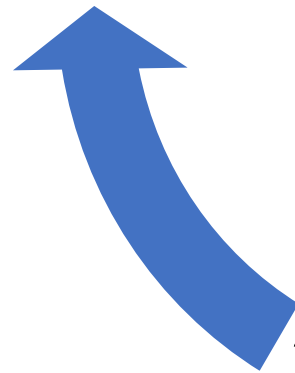
She recalled some of the feelings, but she had blotted out the details of the exchanges. *After this review, her reality was “redefined”.* “

# STEM Success Cycle

1) Learning  
the rules

2) Paying  
your dues

3) Making it  
you



# *How can the tenure process be demystified to support a more diverse and inclusive faculty?*

## ***Policies and Procedures***

- Review policies and procedures for unconscious bias, bias and microaggression tendencies.
- Promote clarifying language, revisions and addendums for transparency and fairness.
- Develop training for faculty at all ranks on the best practices for reappointment, promotion, tenure and post tenure review

## ***Community Building***

- Provide opportunities to have inclusive, “people building” conversations as part of the fabric of the department/college.
- Engage faculty at all ranks in academic governance as appropriate
- Promote scholar visits by potential mentor/coaches for early career faculty.



## ***Mentoring***

- Conduct an authentic mentoring program
- Celebrate exemplars in the mentoring realm
- Design and promote a peer mentoring program.

## ***Reviews and Evaluations***

- Maximize the opportunities to clearly communicate strengths and weaknesses during annual reviews.
- Provide updates and keep faculty in the loop on subtle and major changes in the participants in reviews.

# What are some evidence-based practices to aid STEM faculty in improving skills that enhance their scholar identity?

- **Core elements** of a Faculty Advancement unit (e.g., leadership support, \$\$ resources, staff, faculty based leadership)
- **Cultivating a community of practice** with an underlying expectation of faculty coaching, mentoring and sharing of best practices in research realm (with specific examples); for 350+ faculty.
- **Challenges, potholes, roadblocks and opportunities** in implementation & interactions with other faculty growth entities on campus.

## “Empowering COE Faculty Development & Faculty Well-being... & Research Success!!”



**Collaboration Team: C.S. Grant, B.E. Smith, S. Bailey, D. Sites,**



**Interim Associate Dean: J. Ducoste**



### Recruiting

- Visits
- Materials Information



### Career/Resource Development

- Funding Opportunities
- Career Roadmap
- Leverage Programs



### Promotion

- RPT/PTR
- Regulations/Best Practices



### Retention

- Community Building
- “Faculty Care”
- Pivot Awards
- Leadership Training



### Retirement

- *Actively engage phased retirement faculty*
- *Continued Development*

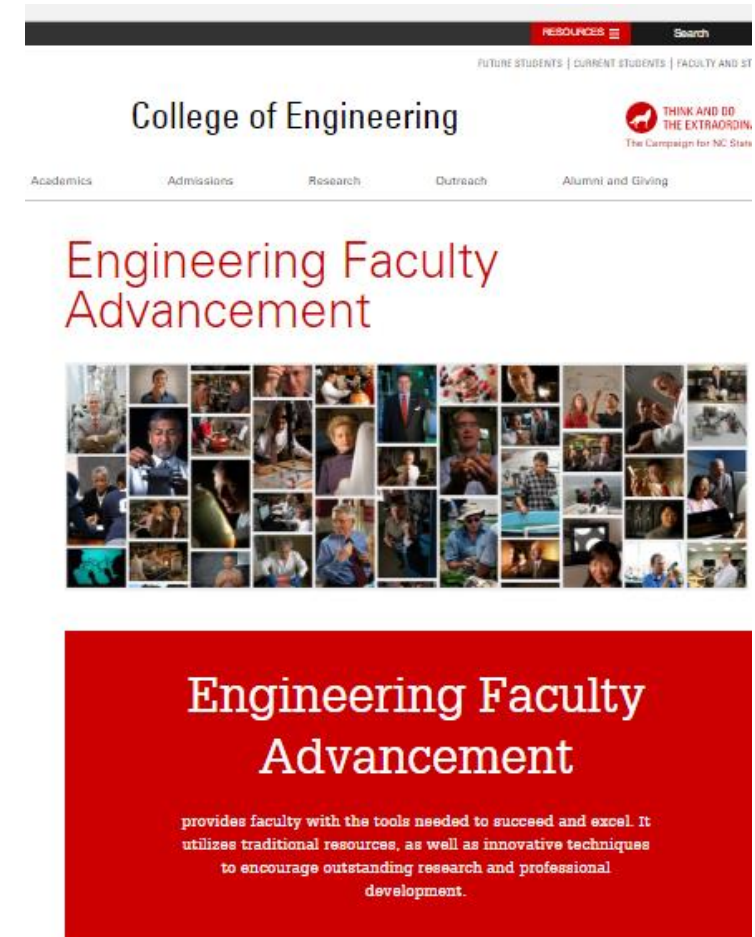


# COE Associate Dean of Faculty Advancement: Roles and Responsibilities

- (1) **establishes the framework** and balanced perspective of diverse departmental cultures in collaboration with a roundtable of department representatives;
- (2) act as a **voice and advocate** for the faculty at the University level (e.g., Post Tenure Review);
- (3) Collaborate with Associate Deans for Research, Academic Affairs, Graduate Programs **on synergistic initiatives**;
- (4) Work at campus and national levels on **Broadening Participation** Initiatives;
- (5) Leader of College level **Reappointment, Promotion, & Tenure; Post Tenure Review** Committees;
- (6) Responsible for Department Head **Five-Year Review Processes**;
- (7) Member of College Executive Committee /Dean direct reports for **College actions**

**Inaugurated at NC State in 2008**

The College of Engineering Faculty Advancement Office was established to advance faculty research, teaching, scholarly work, professional development and career advancements in all disciplines of engineering;



The image shows a screenshot of the College of Engineering website. At the top, there is a navigation bar with 'RESOURCES' and a search icon. Below that, the text 'College of Engineering' is prominently displayed. To the right, there is a logo with the text 'THINK AND DO THE EXTRAORDINARY' and 'The Campaign for NC State'. Below the main header, there are several menu items: 'Academics', 'Admissions', 'Research', 'Outreach', and 'Alumni and Giving'. The main content area features the title 'Engineering Faculty Advancement' in a large, red font. Below the title is a grid of small, square images showing various people in professional settings. At the bottom of the page, there is a red banner with the text 'Engineering Faculty Advancement' in white, followed by a short paragraph: 'provides faculty with the tools needed to succeed and excel. It utilizes traditional resources, as well as innovative techniques to encourage outstanding research and professional development.'

# Faculty Mentoring & Community Building!

## COE NSF CAREER Workshop



## COE Teaching Professors Learning Community

*Non-Tenure*—Professional Track faculty group dedicated to career development of Teaching Faculty.

**Coordinated by Prof. Lisa Bullard**



## Semester Long Research Development course!



## Women Faculty Networking



## Visits to funding agencies



What are **successful strategies and pathways** to recruit and prepare URM<sub>s</sub> for the STEM Professoriate?

What are some **inclusive mentoring practices** that can be leveraged to aid in transitioning from graduate school/postdocs?



**A few examples:**

Minority Engineering Graduate Student Association (MEGSA)

Building Future Faculty Programs (Break outs with current faculty)

# Decisions during the academic journey...



**Professor Maria Mayorga** joined North Carolina State University in August 2013 as a Chancellor's Faculty Excellence Program cluster hire in Personalized Medicine. She is a Professor in the Edward P. Fitts Department of Industrial and Systems Engineering /Healthcare Systems Engineering group.



***Prior to joining the NC State faculty, she was on the faculty at Clemson University, Department of Industrial Engineering for seven years.***

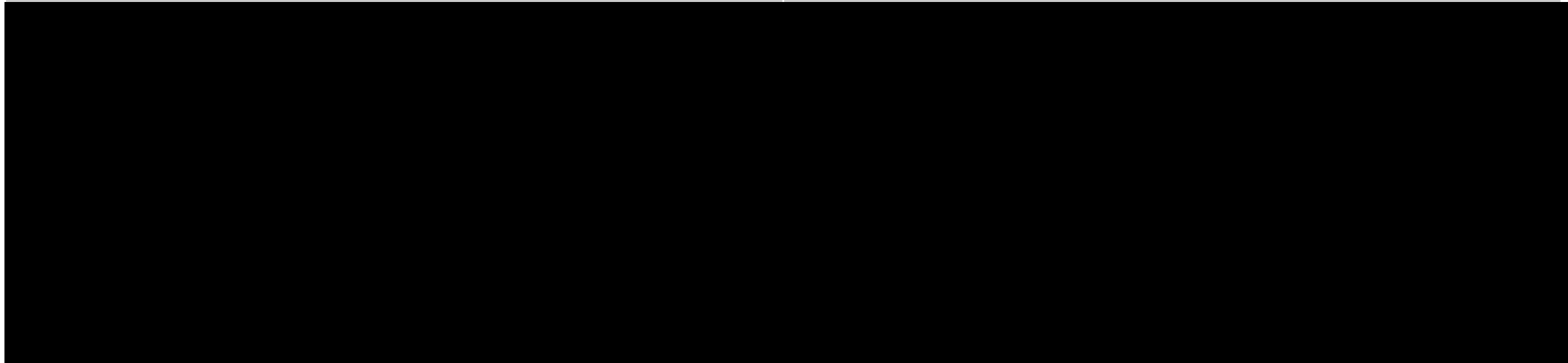
***Professor from Iowa State University brings expertise in additive and hybrid manufacturing to the Kate Gleason College of Engineering***



**Professor Iris Rivero**, head of RIT's Department of Industrial and Systems Engineering, as Fellows, an honor that recognizes outstanding leaders of the profession who have made significant, nationally recognized contributions to industrial and systems engineering.

# 7 Professional Points to Ponder.....

<b>Future and Early Career Faculty</b>	<b>Administrators, Faculty Mentors</b>
<ul style="list-style-type: none"><li>• Find a mentor/coach; Actually you'll need more than one...</li></ul>	<ul style="list-style-type: none"><li>• Be a mentor/coach; to one or to many....</li></ul>
<ul style="list-style-type: none"><li>• Learn the written and unwritten rules</li></ul>	<ul style="list-style-type: none"><li>• Provide behind the scenes information as appropriate</li></ul>
<ul style="list-style-type: none"><li>• Keep track of all that you do.. And don't do....</li></ul>	<ul style="list-style-type: none"><li>• Ask current and prospective faculty about what their priorities are and advise potential course corrections.</li></ul>
<ul style="list-style-type: none"><li>• Create a community of allies/advocates; Be proactive in professional relationship development..</li></ul>	<ul style="list-style-type: none"><li>• Authentically participate in ally/advocate networks.</li></ul>



## Mentors, Mentors Everywhere: Weaving Informal and Formal Mentoring into a Robust Chemical Sciences Mentoring Quilt

C. S. Grant\*

\*Book Chapter in [Growing Diverse STEM Communities: Methodology, Impact, and Evidence](#)  
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Professor  
Stephanie Luster-  
Teasley; North  
Carolina A&T State  
University



Professor Kristala  
Prather; MIT\_



Professor Sharon  
Neal; University of  
Delaware



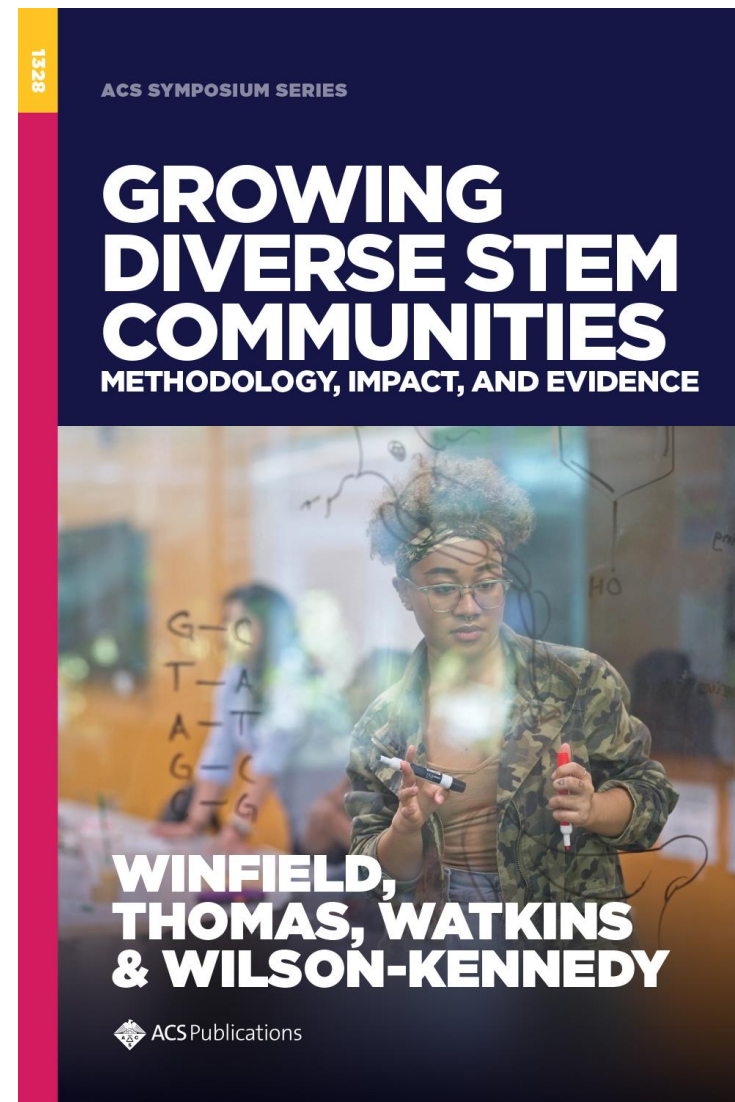
Dr. Ashleigh  
Wright; North  
Carolina State  
University



Professor Paula  
Hammond; MIT



Professor Tamara  
Floyd-Smith,  
Tuskegee  
University



And... Some of my friends (and mentors)... are Chemists...

*CS Grant ... a Chemical Engineer*



**Dr. Tyrone Mitchell** (GE, Corning, NSF)



**Prof. Harold Freeman**  
Textile Engin. Chemistry & Science (NCSU)



**Henry Brown**  
(Polaroid/AIChE/NOBCChE)



**Prof. Matthew Tirrell**  
(The University of Chicago)



**Prof. Dianne Dorland**  
Former Engin. Dean  
(ROWAN)



**Dr. Ronald Brooks** (GE)



**Pres. Ruth Simmons**  
(Brown PVAMU)  
**Pres. Marye Anne Fox**  
(UC San Diego)



**Provost David A. Tirrell**  
(Caltech)



**Dr. Morris Morgan** (GE,  
Hampton)



**Dr. Carolyn Morgan** (GE,  
Hampton)



**Prof. Ruben Carbonell**  
Chem. & Biomolecular  
Engin. (NCSU)



**Dr. Lilia Abron**  
(Founder/CEO Peer  
Consultants)



**Dean Tim Anderson**  
(UMASS)



# Building Your Academic Awards Portfolio!

- **Take** matters into your own hands,
- **Figure out** good awards for you,
- **Ask people** to be the front person for you offering to prepare the materials , and submit many times.
- **Don't give up!!!!**
- **Get feedback** on the nomination statement.
- **Make and keep friends** wherever you can so that people will feel good about nominating you and writing letters for you.



## Latino STEM Scholars, Barriers, and Mental Health:

### A Review of the Literature

José A. Muñoz and Idalis Villanueva

*Literature review contextualizes the experiences of Latino/a STEM faculty, focused examination on potential ties between health disparities and discrimination, mental strain, barriers to health care, and occupational identities and stress.*

Despite well-documented health disparities experienced by the Latino community, little is known about Latino/a STEM faculty and the stressors they face (Zambrana, 2018)

- Important to **contextualize what has been reported to date** in terms of the disparities faced among Latino/a STEM faculty in relation to their emotional and mental well-being within higher education environments.

- **Multiple responsibilities of a faculty** (e.g., caregiving responsibilities, promotion and tenure, publications, teaching, leadership roles, tokenistic status) may be contributing factors to these health disparities.

Source: Muñoz JA, Villanueva I. Latino STEM Scholars, Barriers, and Mental Health: A Review of the Literature. *Journal of Hispanic Higher Education*. December 2019. doi:10.1177/1538192719892148

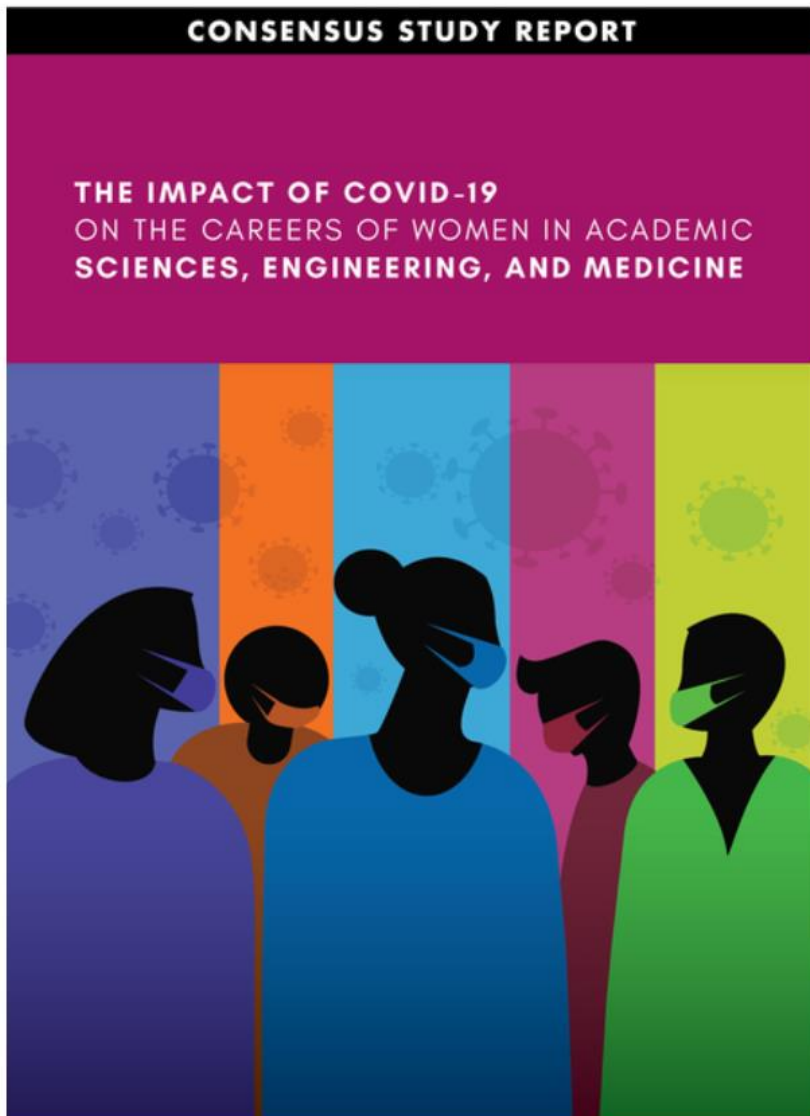
**Note: above work not funded by NSF**



**Prof. Idalis Villanueva**

**NSF CAREER: Advocating for  
Engineering through Hidden  
Curricula: A Multi-  
Institutional Mixed Method  
Approach  
# 1653140**

(Utah State → U of Florida)



## FINDINGS.....

1. Women's Representation in STEMM
2. Confluence of Social Stressors
3. Intersectionality and Equity
4. Academic Productivity
5. Institutional Responses
6. Institutional Responses
7. Work-Life Boundaries and Gendered Divisions of Labor
8. Collaborations
9. Networking and Professional Societies
10. Academic Leadership and Decision Making
11. Mental Health and Well-being

***Finding 3 Intersectionality and Equity:*** Structural racism is an omnipresent stressor for Women of Color, who already feel particularly isolated in many fields and disciplines. Attempts to ensure equity for all women may not necessarily create equity for women across various identities if targeted interventions designed to promote gender equity do not account for the racial and ethnic heterogeneity of women in STEMM (see Chapters 1, 3, and 4).

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