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DIVERSITY

IN THE MINERALS, METALS, AND MATERIALS PROFESSIONS (DMMM2)



July 25-26, 2016

Northwestern University, Evanston, IL

Amy Clarke

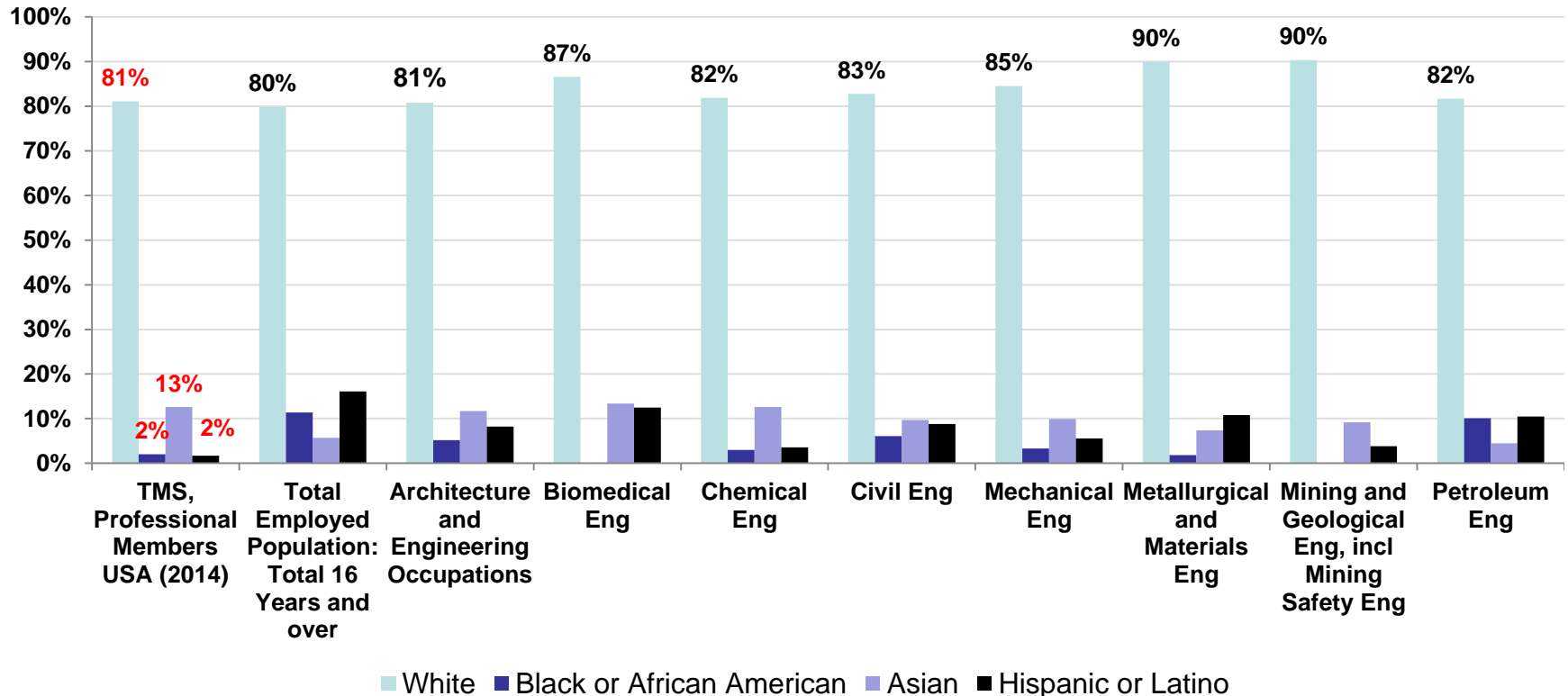
Summit Organizing Chair

Scientist, Los Alamos National Laboratory



Background Data

Employed Persons in Metallurgical and Materials and Other Engineering Disciplines by Ethnicity

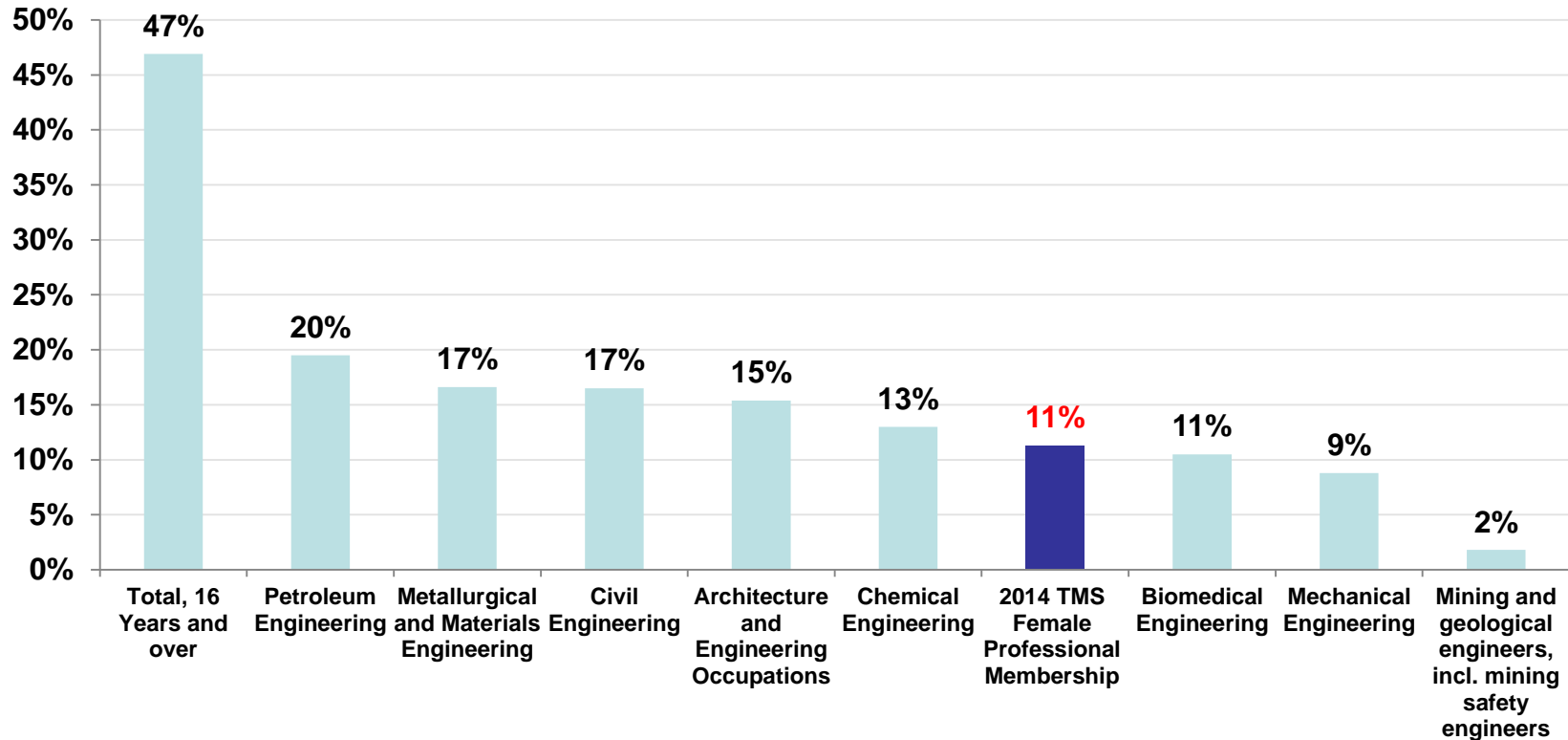


Sources:

[1] BLS Table 1. Employed and experienced unemployed person by detailed occupation, sex, race, and Hispanic or Latino ethnicity; Annual Average 2014, 2013, 2012, 2011 (Current Population survey) [2] TMS 2014 Membership Statistics

Background Data

Employed Persons in Metallurgical and Materials and Other Engineering Disciplines – Percentage of Women



Sources:

[1] BLS Table 1. Employed and experienced unemployed person by detailed occupation, sex, race, and Hispanic or Latino ethnicity; Annual Average 2011-2014 (Current Population survey) [2] TMS 2014 Membership Statistics

2018 TMS Strategic Goals



1. Advance **diversity and inclusion** in the minerals, metals, and materials professions
2. Accelerate **industrial engagement** in TMS
3. Globally expand the portfolio of **international activities**
4. Advance materials solutions for **energy and environmental** challenges
5. Be the natural home and advocate for **materials and manufacturing innovation**

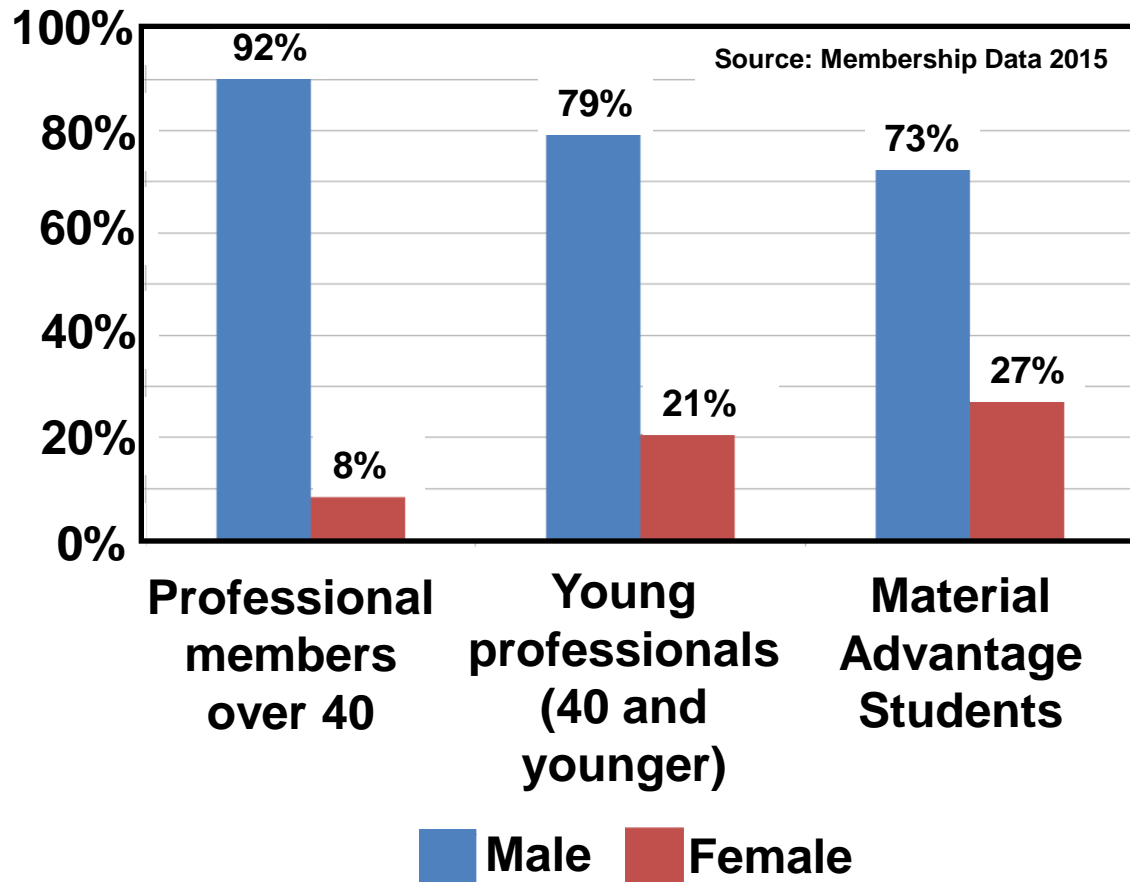


Diversity and Inclusion Goal

Advancing a more welcoming and inclusive professional community for all:

- TMS Summit on Diversity in the Minerals, Metals and Materials Professions (DMMM1, DMMM2)
- Tools, resources, and best practices
- Recognizing pioneers in diversity through two awards programs
- Sharing our progress to encourage engagement

TMS Membership: Gender and Age

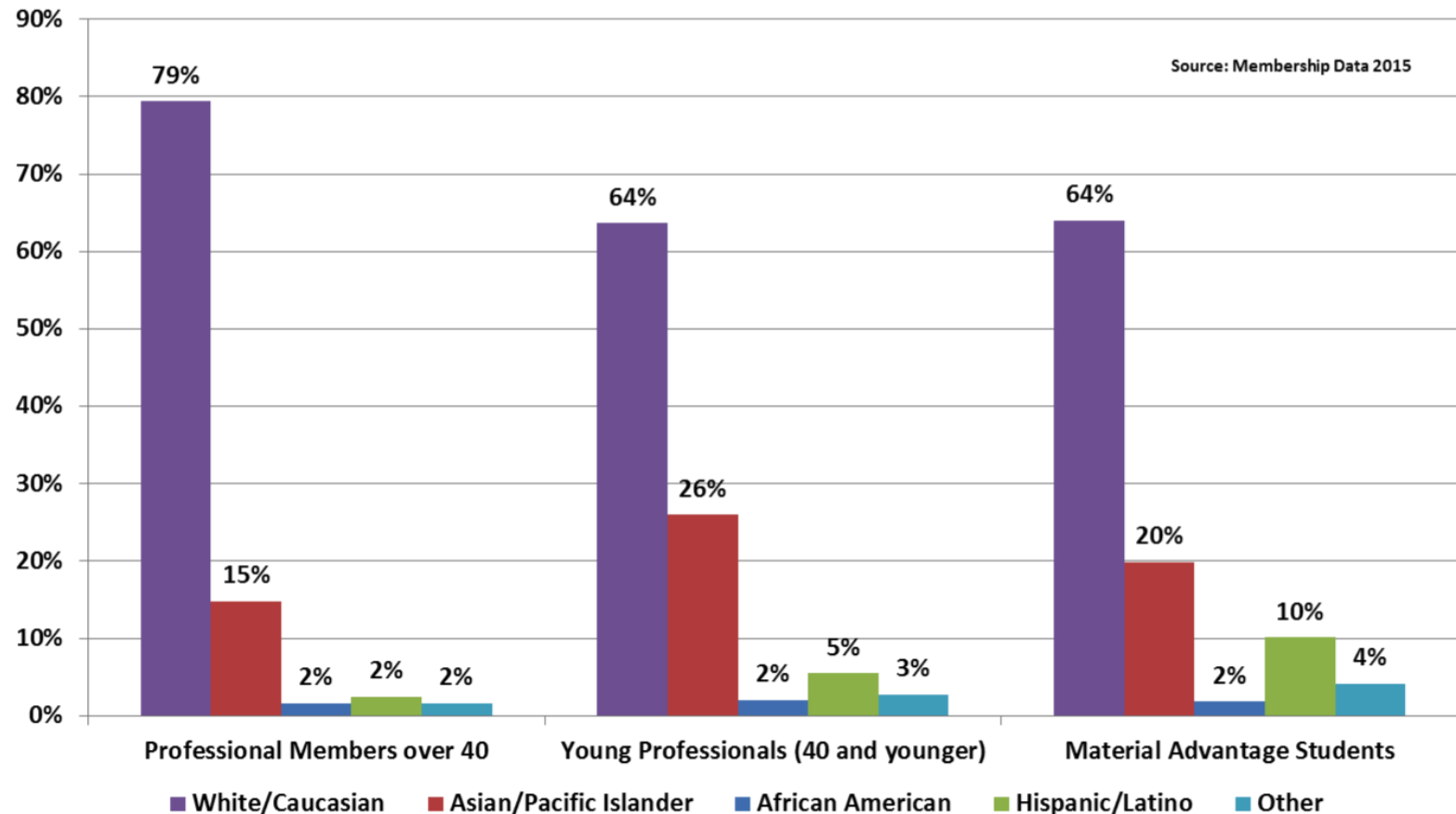




Diversity and Inclusion Goal

Ethnicity of U.S.-based TMS Members by Age

2015 TMS Membership Statistics

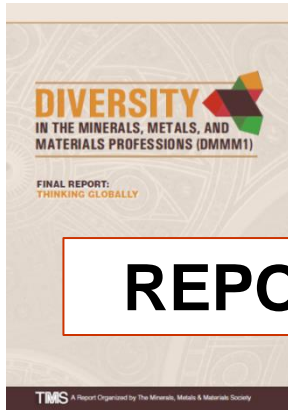


DMMM1 Summary

- July 29-31, 2014 at The National Academy of Sciences in Washington, DC
- 115+ Attendees
- ~30 invited speakers
- Keynotes, panel discussions, training modules, and peer-to-peer networking functions
- 92% of surveyed attendees said that they “understand diversity topics better” after attending DMMM1
- 79% said that the experience provided them with “practical skills to support diversity in my workplace.”



DMMM1 Outputs



REPORT:

- Mentorship
- Work-life Balance
- Community
- Awareness
- Vigilance



TOOLKIT:

- TMS Diversity Summit Presentations
- Advancement and Assessment Resources
- Reference Materials
- Skill-Building Resources
- Community Partners and Resources

Access both resources at www.tms.org/Diversity.

ORGANIZERS

- **Amy Clarke**, Los Alamos National Laboratory (Chair)
- **Keith Bowman**, San Francisco State University
- **Ann Carpenter**, Remote Energy Solutions
- **Benjamin Cordani**, Caterpillar
- **Elizabeth Holm**, Carnegie Mellon University
- **Beth Lewis**, Wyman-Gordon Forgings
- **Jonathan Madison**, Sandia National Laboratories

KEY THEMES TO BE EXPLORED

- *Improving underrepresented minority (URM) engagement*
- *Creating a welcoming and inclusive workplace culture*
- *Identifying pathways to career fulfillment*

Why Attend DMMM2?

- **Solutions-Driven Programming:** Not just *why* but *how* to build a more diverse and inclusive professional community
- **Professional Development:** Take home skills and strategies to make a difference in your own workplace and career experience
- **Networking Opportunities:** Expand your network of colleagues who share a commitment to diversity and inclusion

Programming Details

- **40 Presenters** with unique backgrounds spanning minerals, metals, and materials
- Sessions will cover **Recruitment, Retention,** and **Pipeline** issues in the MSE fields
- **Government, Academia, and Industry** attendees will share best practices and ideas
- **Confirmed Plenary Speakers:**
 - **Elizabeth Holm**, Carnegie Mellon University
 - **Susan Kiehl**, Lockheed Martin
 - **Tresa Pollock**, University of California, Santa Barbara
 - Others TBA

DMMM2 Participants



Rhonda Olson
Diversity Recruitment
Manager - North America,
Caterpillar Inc.
Recruitment II Panelist

[View Bio](#)



Melonie D. Parker
VP of Human Resources &
Communications, Sandia
National Laboratories
Recruitment I Panelist

[View Bio](#)



Tresa Pollock
Alcoa Professor and Chair,
Department of Materials,
University of California, Santa
Barbara
Plenary Speaker

[View Bio](#)



Orlando Rios
Research Staff, Materials
Science and Technology
Division, Oak Ridge National
Laboratory
Mid-Career Panelist

[View Bio](#)



Jeffrey S. Thompson
Dean, College of Science,
University of Nevada, Reno
Retention II Panelist

[View Bio](#)



Tia Benson Tolle
Director, Advanced Materials
Product Development, Boeing
Commercial Airplanes
Executive I Panelist

[View Bio](#)



Shanna Travis
Advisor to Deputy Director,
Chief Technology Officer, U.S.
Department of the Treasury
Retention I Panelist

[View Bio](#)



Sossina M. Haile
Walter P. Murphy Professor of
Materials Science and
Engineering, Northwestern
University
Pipeline II Panelist

[View Bio](#)



Mary Hockaday
Associate Director for
Experimental Physical
Sciences, Los Alamos
National Laboratory
Executive I Panelist

[View Bio](#)



Theodore Hodapp
Director of Education and
Diversity, American Physical
Society
Pipeline I Panelist

[View Bio](#)



Elizabeth Holm
Professor of Materials and
Engineering, Carnegie Mellon
University
Opening Plenary Speaker

[View Bio](#)



Susan Kiehl
VP of Product Development,
Lockheed Martin
Plenary Speaker

[View Bio](#)



Debra K. Lasich
Associate Vice President for
Diversity and Inclusion,
Colorado School of Mines
Executive II Panelist

[View Bio](#)



Alexis Lewis
Program Director, National
Science Foundation
Early Career Panelist

[View Bio](#)



Jonathan Madison
Senior Member of Technical
Staff, Sandia National
Laboratories
*Roadmap for Navigating
DMMM2 & Summary of
DMMM2*

[View Bio](#)



Lynnette Madsen
Program Director, National
Science Foundation
Case Studies

[View Bio](#)



Michele Manuel
Associate Professor,
University of Florida
Mid-Career Panelist

[View Bio](#)



Simona Murph
Principal Scientist, Savannah
River National Laboratory
Pipeline II Panelist

[View Bio](#)



Debby Newman
Director, Human Resources,
Goldcorp
Retention II Panelist

[View Bio](#)

DIVERSITY IN THE MINERALS, METALS, AND MATERIALS PROFESSIONS (DMMM2)

July 25-26, 2016 | Northwestern University, Evanston, IL



About Programming Presenters Registration & Housing/Travel Honorees Sponsorship

Diversity in the Minerals, Metals, and Materials Professions (DMMM2)

July 25-26, 2016 • Northwestern University • Evanston, Illinois, USA

According to the post-meeting survey, 92% of DMMM1 attendees said they understand diversity topics better after participating in the summit.

CONFIRMED INVITED PRESENTERS



Viola Acoff
Professor and Associate Dean
for Undergraduate Programs,
University of Alabama
Mid-Career Panelist

[View Bio](#)



Tony Baylis
Director, Office of Strategic
Diversity and Inclusion
Programs, Lawrence
Livermore National
Laboratory
Recruitment II Panelist

[View Bio](#)



David Bahr
Head and Professor, Materials
Engineering, Purdue
University
Pipeline II Panelist

[View Bio](#)



Keith Bowman
Professor and Dean of the
College of Science &
Engineering, San Francisco
State University
Recruitment I Panelist

[View Bio](#)



Kimberly S. Budil
VP for Office of the National
Laboratories, University of
California, Office of the
President
Retention II Panelist

[View Bio](#)



Ann Carpenter
President and CEO, Remote
Energy Solutions
Pipeline I

[View Bio](#)



Ellen Cerreta
Technical Staff Member, Los
Alamos National Laboratory
Early Career Panelist

[View Bio](#)



Amy Clarke
Scientist, Los Alamos
National Laboratory
*Conference Welcome,
Opening Reception*

[View Bio](#)



Oscar Dubón
Professor and Associate
Dean for Student Affairs and
Equity & Inclusion, University
of California, Berkeley
Pipeline I Panelist

[View Bio](#)



Lisa Durham
Director, Leadership Institute
and Principal Environmental
Engineer, Argonne National
Laboratory
Retention I Panelist

[View Bio](#)



Leigh Freeman
Principal, Leigh Freeman
Consultancy
Case Studies

[View Bio](#)



Christine Furstoss
Vice President and Technical
Director for Manufacturing
and Materials Technologies,
General Electric
Executive II Panelist

[View Bio](#)

www.tms.org/meetings/2016/diversity2016

Who Should Attend?



“Leaders shouldn’t just preach to the choir, they should be the choir!”

-Johnnie DeLoach

Something for Everyone: DMMM2 will include interactive breakout sessions, panel discussions, case studies and best practices, and networking events suited for attendees from every sector (academia, government, industry) and at any level of their career.

2016 Diversity Award Recipients

Ellen Swallow Richards Diversity Award



Lynnette Madsen
Program Director, National
Science Foundation

Past Recipients:
Julia Weertman (2015)
Viola Acoff (2014)

Frank Crossley* Diversity Award



Carolyn Hansson
Professor, University
of Waterloo

*Frank Crossley - the first African American to earn a Ph.D. in metallurgy and a long-time TMS member.

How to be Part of the Solution

- Visit the website to register you and your colleagues:
www.tms.org/Diversity2016
- Share DMMM2 info with your colleagues
- Visit the toolkit and suggest resources
- Contact me:
aclarke@lanl.gov





Other TMS Supporting Initiatives

- **“Transforming the Diversity Landscape” Student-Run Symposium at TMS2016**
 - Aim to raise awareness of the current diversity landscape in STEM, and address frequently overlooked implicit biases.
 - Concrete takeaways and action plans for attendees to bring back to their communities.
 - Afternoon session featured a panel of six past Presidents of TMS, discussing their experiences with Diversity.





Other TMS Supporting Initiatives

- **TMS Family Care Initiatives**

- Rooms for nursing mothers made available at the Music City Convention Center and Omni Nashville Hotel at TMS2016.
- Added a “Childcare Resources” tab to the TMS2016 website, including links to find local childcare providers.
- A Family Care Support Proposal is in preparation by the TMS Diversity Committee that would provide grants to help offset the expenses of individuals with family care challenges that might experience a hardship traveling to TMS meetings (targeted for 2017).

- **Diversity Myth Busting Quiz**

- Myth-busting quiz available in online format during TMS2016. Enhanced version of paper-format quiz deployed at MS&T15.
- Goal: to raise the level of diversity awareness, spark conversations, and get people involved.
- Quiz was promoted at the TMS Membership Café and by Diversity Committee volunteers throughout the week.

**THANK
YOU!**