

# The Importance of Diversity, Equity, and Inclusion in STEM

---

**Dr. Liz Litzler**



**CENTER FOR EVALUATION & RESEARCH FOR STEM EQUITY**

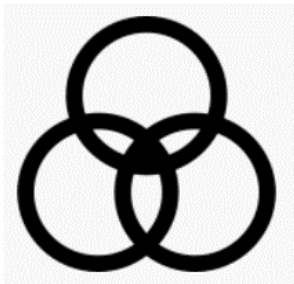
---

UNIVERSITY *of* WASHINGTON

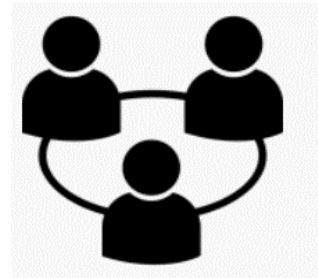
Institute for Nuclear Theory, Feb 14, 2024



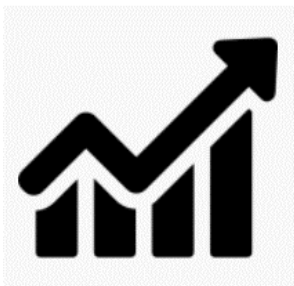
To improve equity and broaden representation in STEM fields



Research,  
Evaluation, &  
Consulting



Building  
Relationships

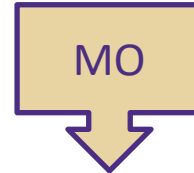
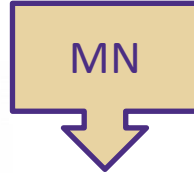


Multiple  
Methodologies



Critical  
Orientation

# Who Am I?



This Photo by Unknown Author is licensed under [CC BY](#)

This Photo by Unknown Author is licensed under [CC BY-SA-NC](#)



# Principles of Engagement

---

Initial Agreements from G. Singleton's & C. Linton's  
Courageous Conversations

1. Stay Engaged
2. Experience Discomfort
3. Speak your Truth
4. Expect and Accept Non-Closure

# Reflection Exercise

---

Picture a situation when you felt included, welcomed, or valued in the recent past....

What about that situation made you feel that way?

# **Today's Agenda**

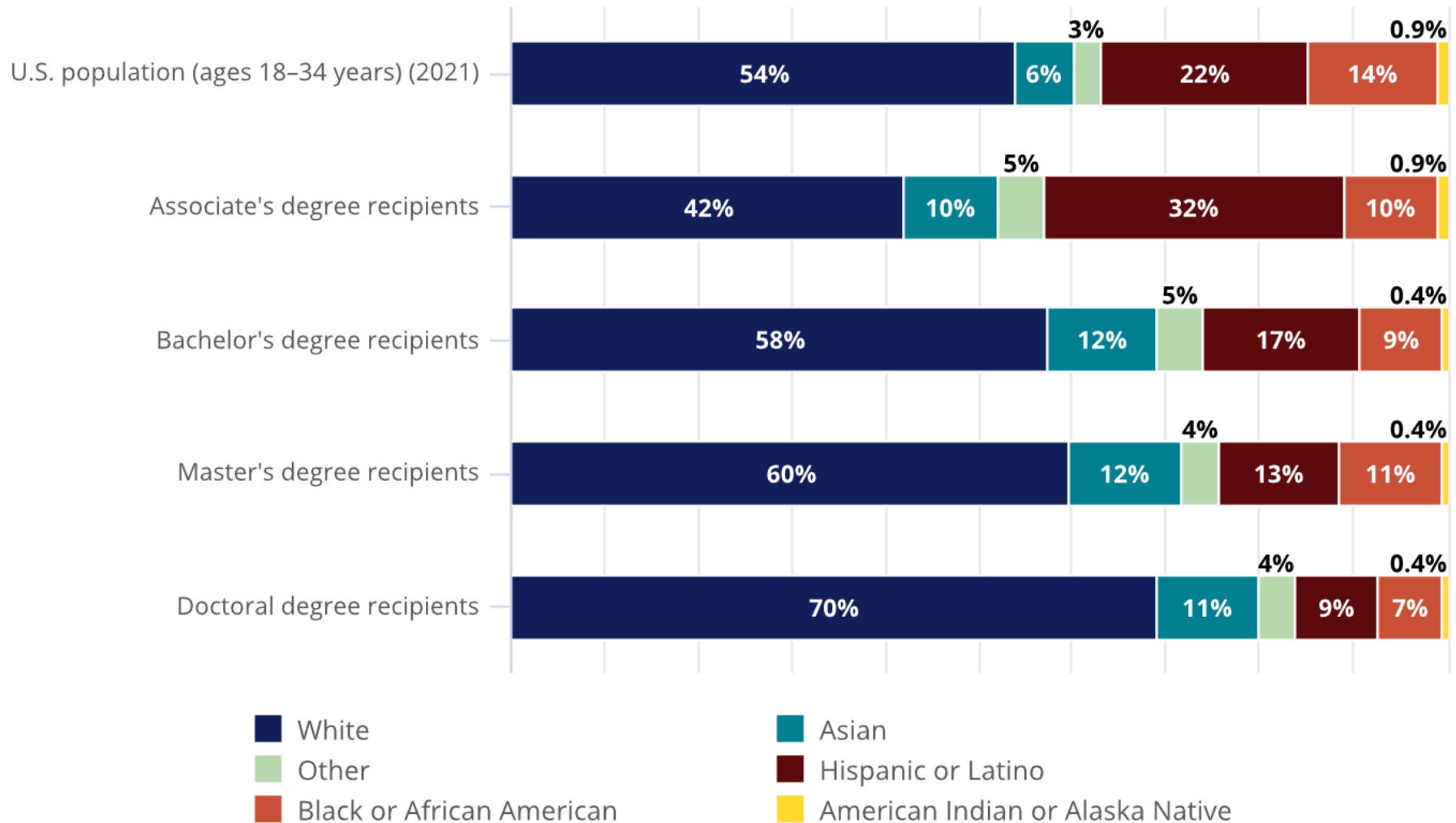
---

- > The state of Diversity, Equity, and Inclusion (DEI) in STEM Fields and what we mean by DEI**
- > Research on Barriers to Inclusion**
- > What you can do**



# The State of DEI in STEM

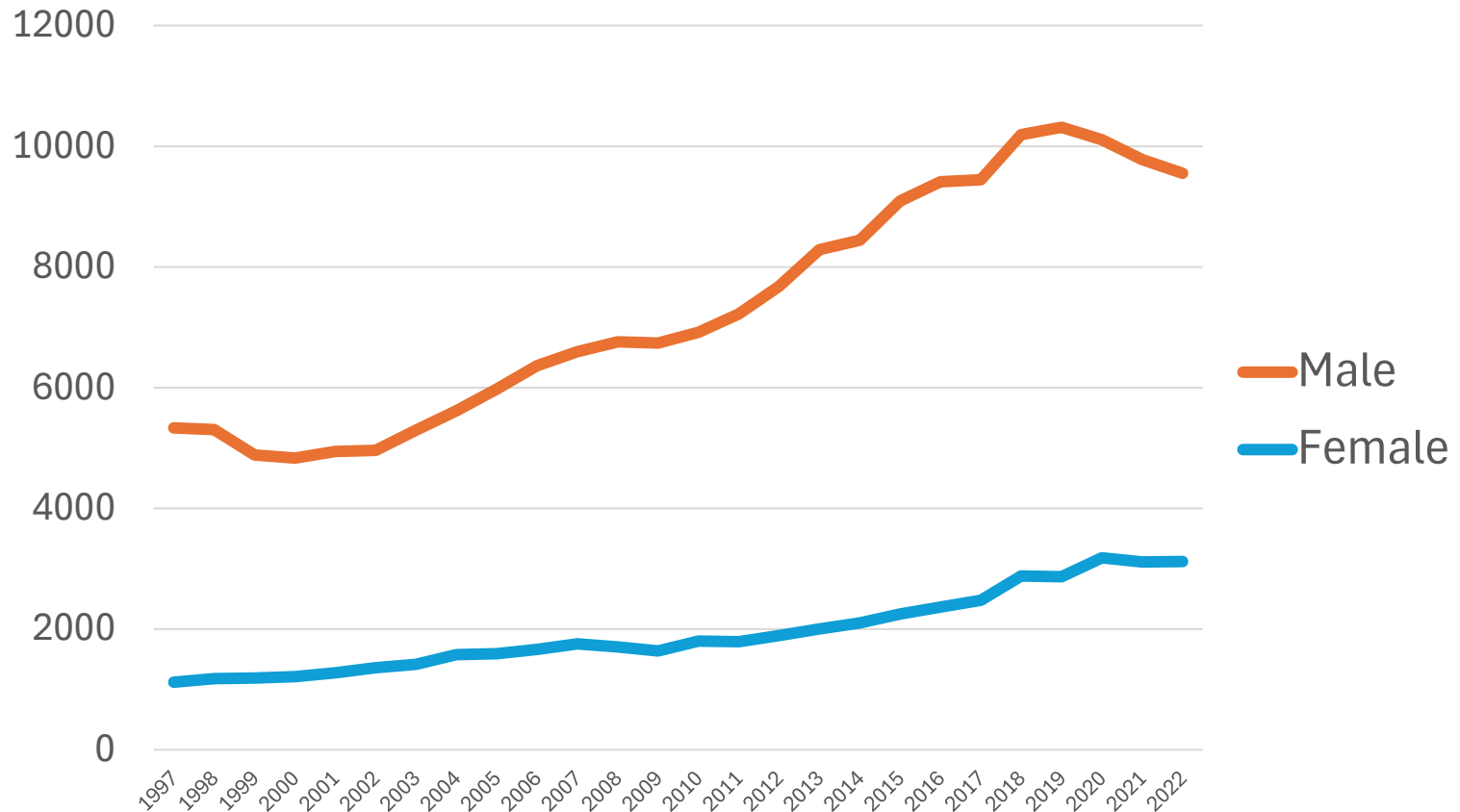
U.S. population ages 18–34 and S&E degree recipients, by degree level and race and ethnicity: 2020



Source(s):

National Center for Science and Engineering Statistics, special tabulations (2022, Table Builder)

# Degree completions in Physics by Gender



> NCSES data





# The Result:

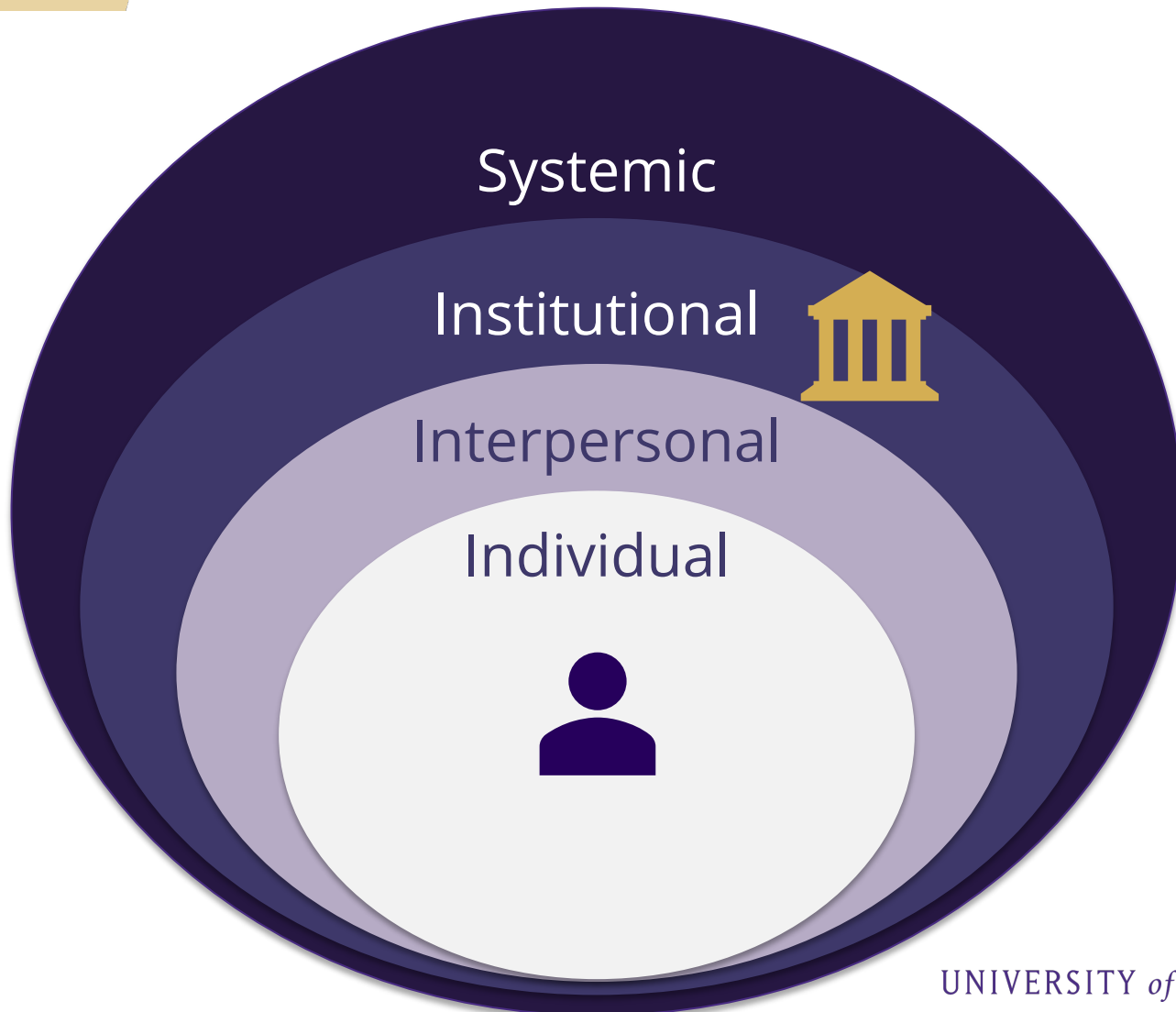
---

- > **We lose people and their talent and perspectives**
- > **People don't feel like they belong or don't feel welcome**
- > **Some groups of people are treated differently/inequitably**
- > **People are actively discouraged**
- > **People are passively discouraged**



# Framework for DEI Analysis

---



# Why diversity, equity, inclusion and justice?

---

Diversity = Numbers

Equity = Fairness, treating people how they need to be treated so that all are on a level playing field

**Inclusion = Welcoming, respecting, valuing different ways of thinking and being**

Justice = Recognizing and addressing inequity

# Belonging is a human need

---



# Discuss: Bringing our full selves to our work

---



**Think:** What aspect of yourself do you hide in the workplace?



**Discuss:** What do you worry would happen if you shared those parts of yourself?

# Research on Barriers to Inclusion (and how to address them)

---

# Barriers to Inclusion

---

- > **Stereotypes/Unconscious Bias, Implicit Bias**
- > **In-Group / Out Group Bias**
- > **Microaggressions**
- > **Physical Barriers**
- > **Ignoring/Tokenizing Differences**
- > **No prioritization or Lack of focus**



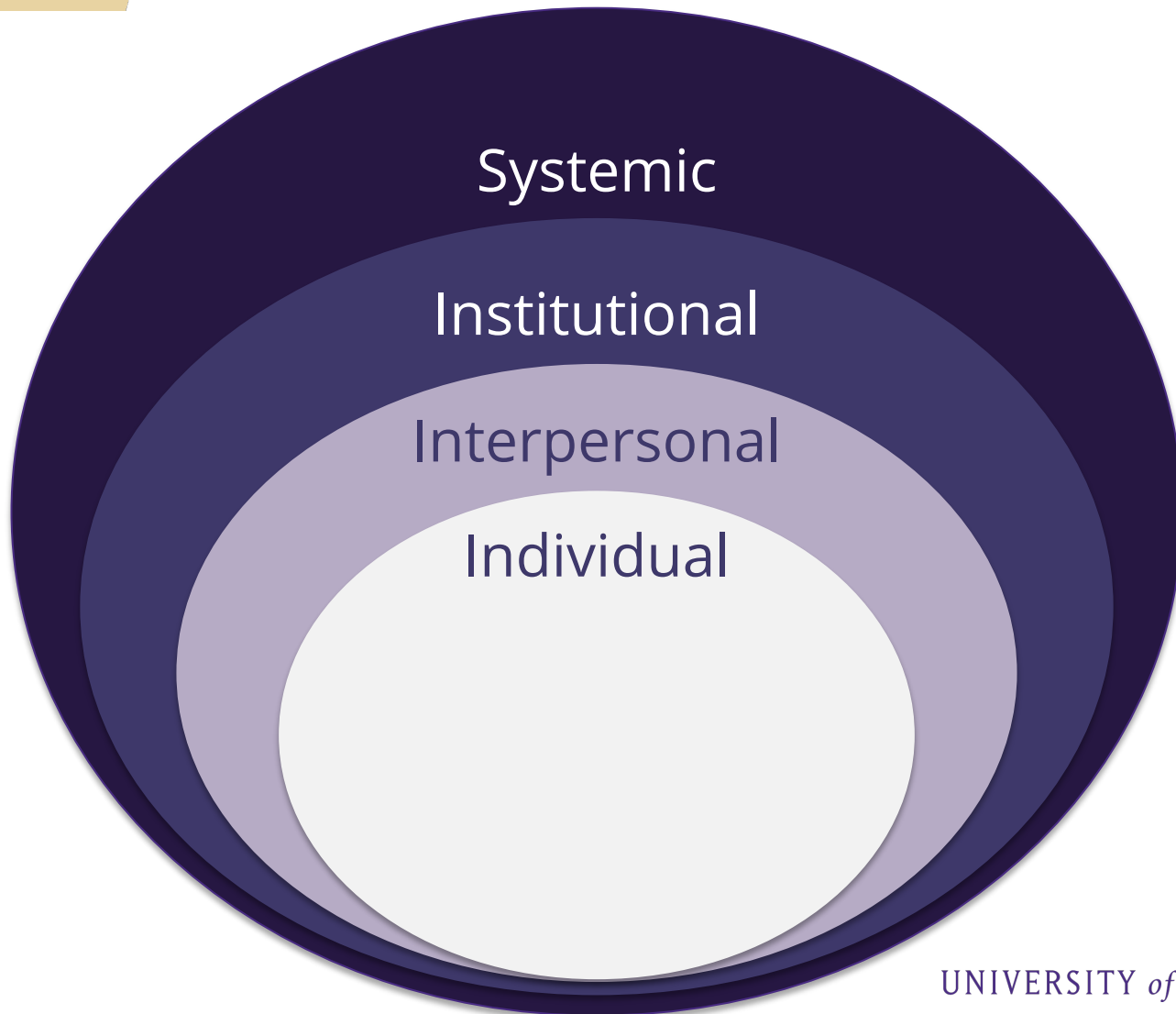
# What can be done?

---



# Action Planning

---



# Complicity & Collusion

---



# **Belonging and inclusion are enhanced when people are:**

---

- > Known/recognized**
- > Affirmed for their assets**
- > Needed**
- > Shown love/care**
- > Able to contribute / have their voices heard**
- > Able to access relevant opportunities**
- > Able to meet with others similar to themselves**
- > Open/transparent in communication**



# **Belonging and inclusion are enhanced when organizations are:**

---

- > Providing opportunities to all**
- > Creating affinity spaces and supporting them with resources**
- > Open/transparent in communication**
- > Focused on building team cohesion and empowering others**
- > Implementing fair performance evaluations**
- > Known for having diverse leaders**
- > Examining and addressing structural inequities**





## A day in the life exercise

---

- Entering the building
- Entering the lab/research space
- Working on an experiment in the lab
- Lab group meeting
- Lunchtime
- Meeting with an advisor/mentor

- > **Stereotypes/  
Unconscious Bias**
- > **In-Group / Out Group  
Bias**
- > **Microaggressions**
- > **Physical Barriers**
- > **Ignoring/Tokenizing  
Differences**

# Final Reflection Exercise

---

**What is one commitment you are making today to increase inclusion and belonging in your school/workplace?**

**Questions, Comments,  
Reflections?**

---

**Liz Litzler [elitzler@uw.edu](mailto:elitzler@uw.edu)**