Inclusivity Network Analysis
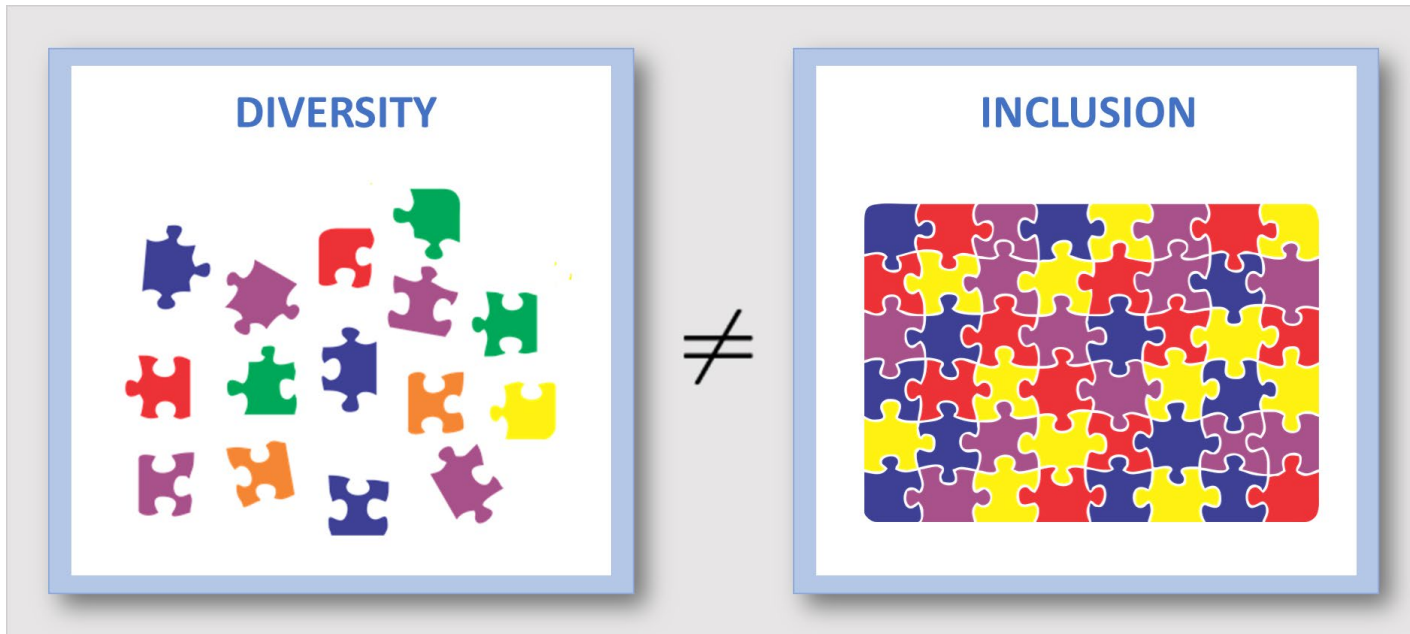
Mapping employee networks through the NIST Interactions Survey

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Why is inclusion important?

DIVERSITY

INCLUSION

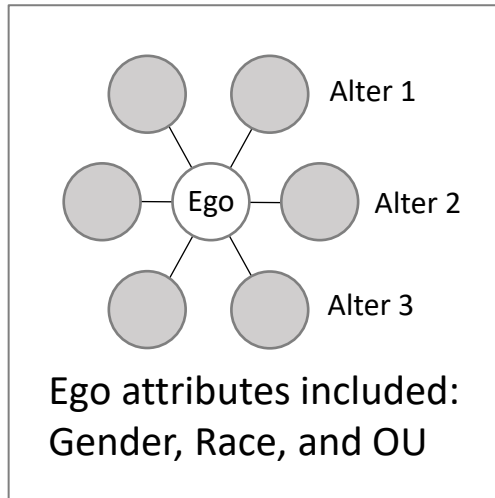≠

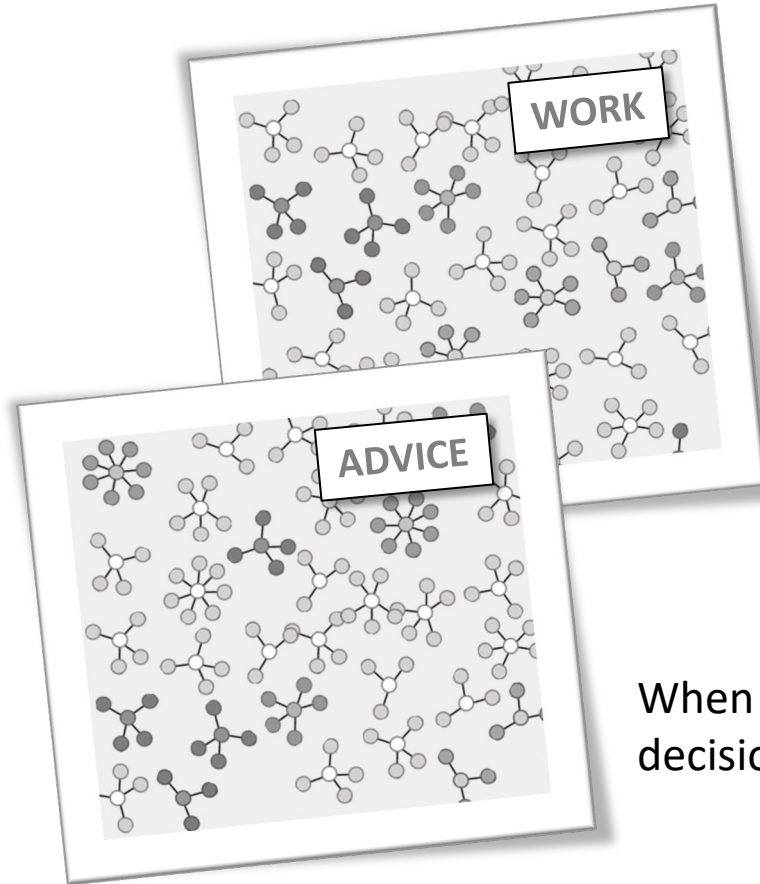Credit: CQBurdette

Credit: Pixabay

What is inclusion?
Inclusion in the workplace is associated with the extent to which employees have access to information and opportunities through their connections.

Interactions considered

NIST Interactions Survey

Ego attributes included: Gender, Race, and OU

Credit: Pixabay

WORK

When achieving work goals at NIST …

ADVICE

When making career-related decisions at NIST…

Survey response rate: 24.6 %.

Limitation: Data was collected during the COVID-19 pandemic, a moment in time characterized by atypical work-from-home modalities that may have impacted the interactions we sought to measure, particularly those pertaining to advice-seeking.
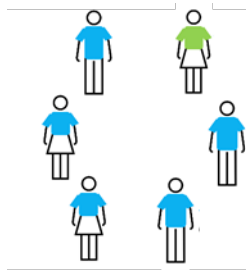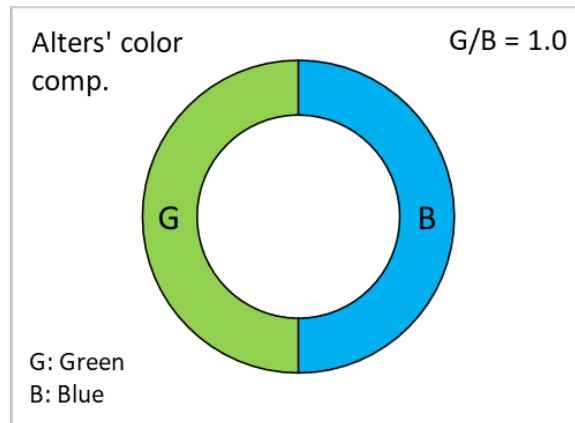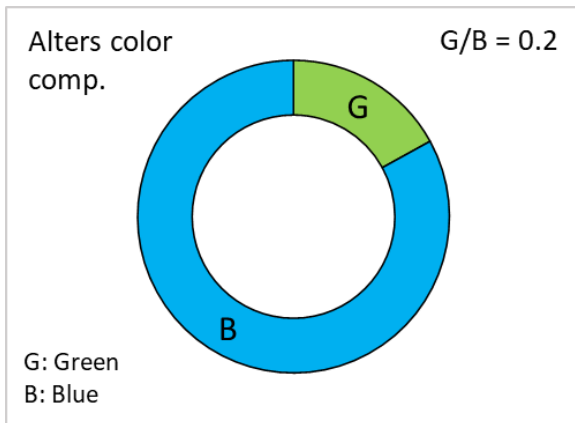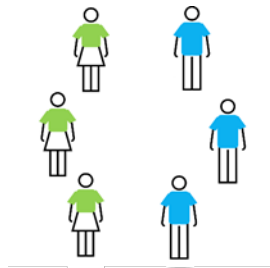
Credit: Pixabay

Network characteristics

COMPOSITION

Alters color comp.   G/B = 0.2

G
B

G: Green
B: Blue

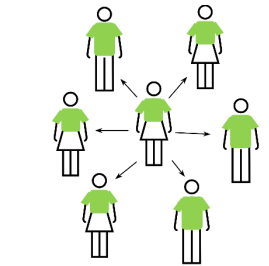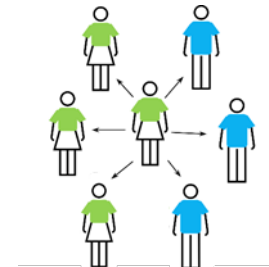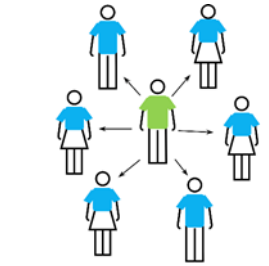Alters' color comp.   G/B = 1.0

G   B

G: Green
B: Blue

Mostly B

Equally mixed

SIMILARITY

$$\text{EI}_\alpha = \frac{E - I}{E + I}$$

+1 All different

0   Equally mixed

-1 All same

NIST Workforce (Feds and Associates)
73% M
27% F
M/F = 2.7

Gender   PNA   M/F = 1.9

M; Male
F: Female

Gender   PNA   M/F = 1.0

M; Male
F: Female

WORK

ADVICE
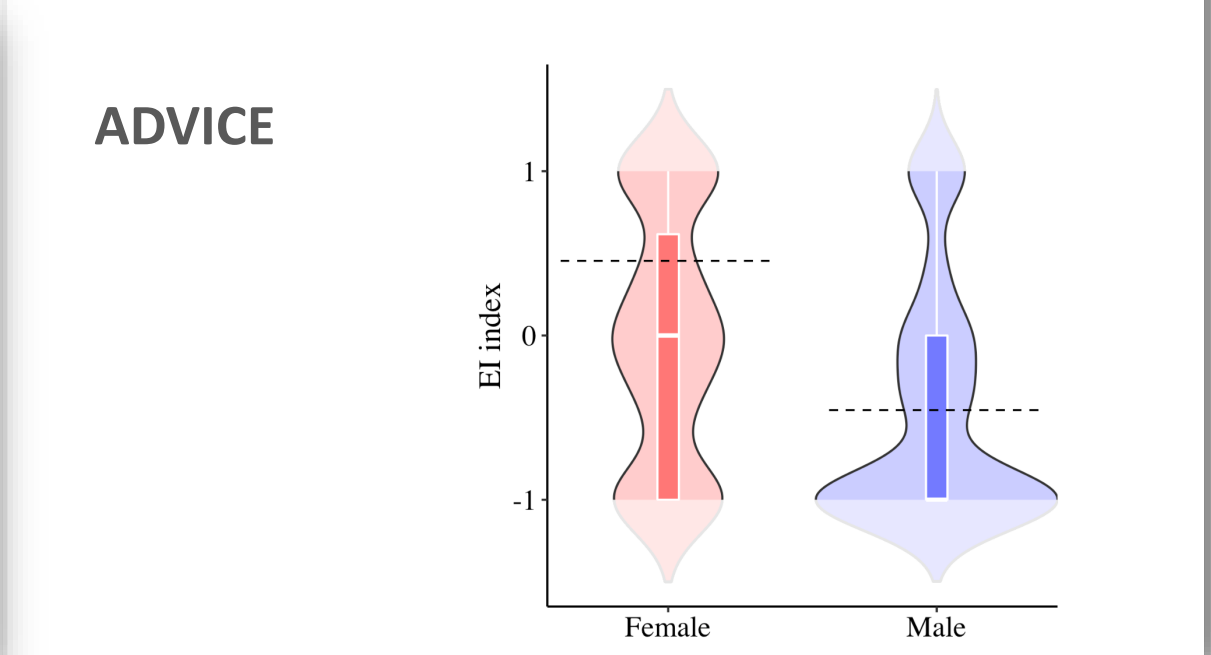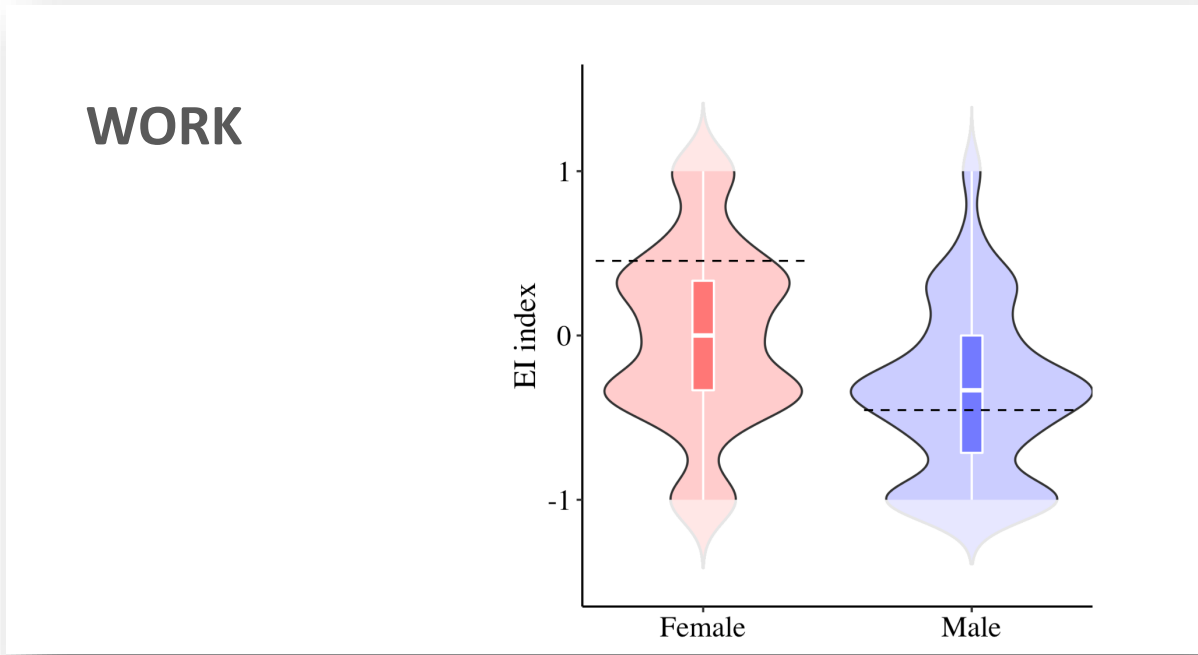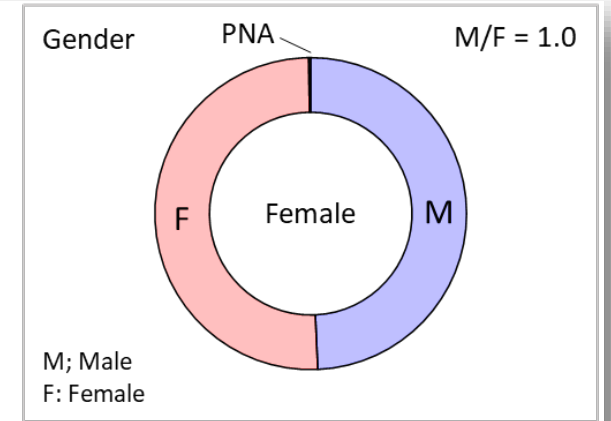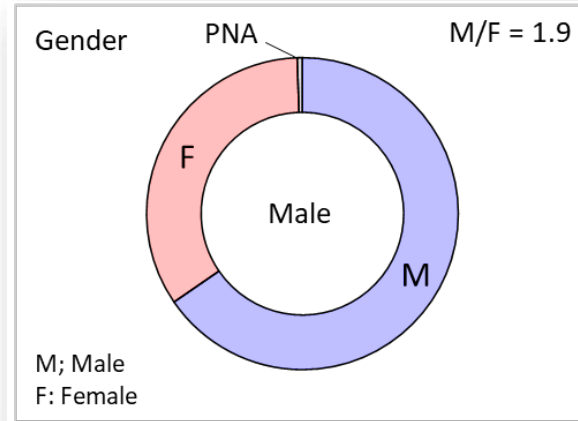
Gender - Recommendations

Credit: Pixabay
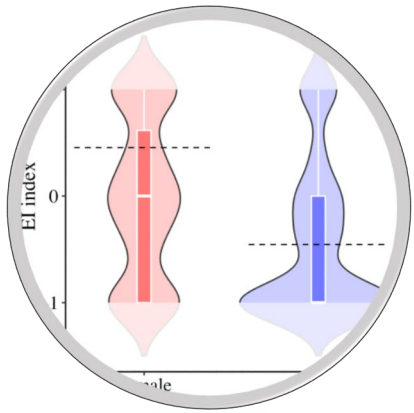
Recommendation 1: Establish a Women Mentorship Circle Program that fosters informal connections among female employees.

NOTE: Since our analysis shows that respondents do not consider the supervisory status to be important when seeking advice, the pool of potential female mentors in the program can be substantially increased by incentivizing participation from experienced non-supervisor females.

RELATED FINDING: Promoting and nurturing informal connections among female colleagues is needed, particularly given our current male-dominated workforce.

Organizational Units – Key findings

OU — S/D = 3.1
- L: Lab
- NL: Non-Lab
- S: Same OU
- D: Different OU (L + NL)

(Lab)

OU — S/D = 2.2
- L: Lab
- NL: Non-Lab
- S: Same OU
- D: Different OU (L + NL)

(Non-Lab)

OU — S/D = 3.6
- L: Lab
- NL: Non-Lab
- S: Same OU
- D: Different OU (L + NL)

(Lab)

OU — S/D = 2.0
- L: Lab
- NL: Non-Lab
- S: Same OU
- D: Different OU (L + NL)

(Non-Lab)

WORK

ADVICE

EI index — LAB, NL
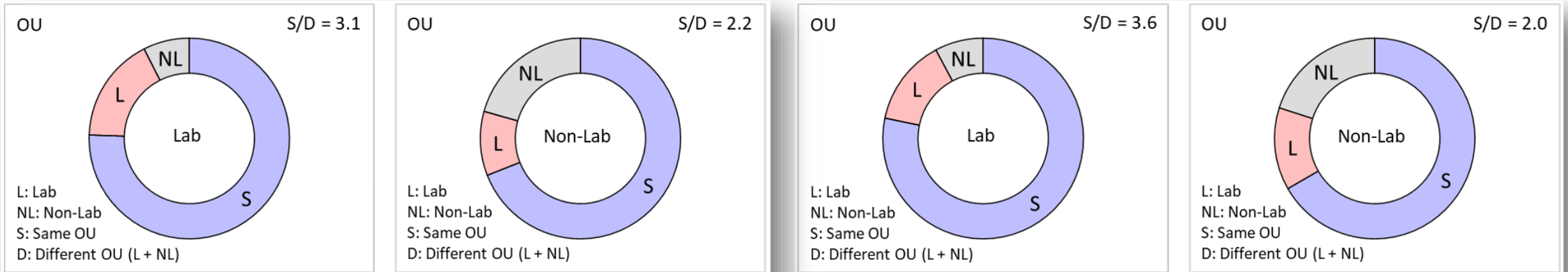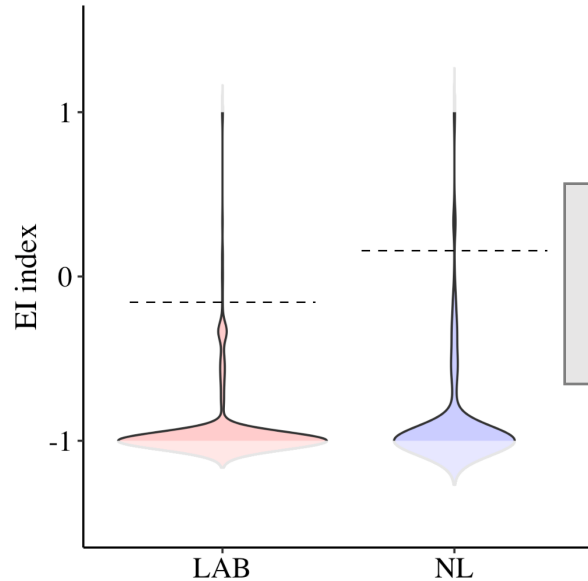
NIST Workforce (Feds and Associates)
58% Labs
42% Non-Labs
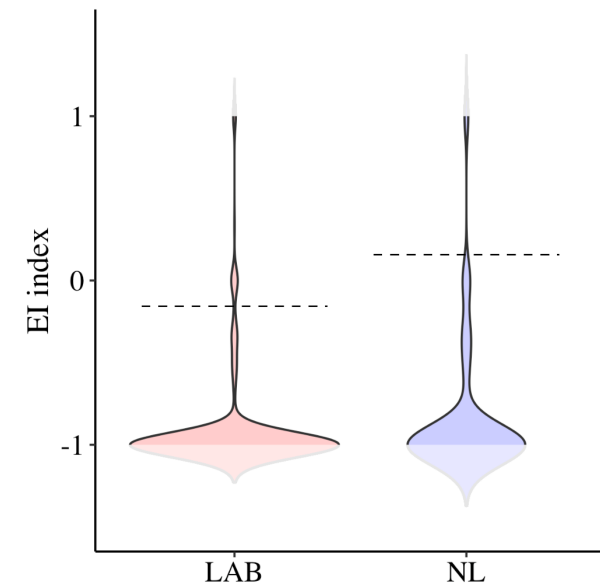
Organizational Units - Recommendations

Credit: Pixabay
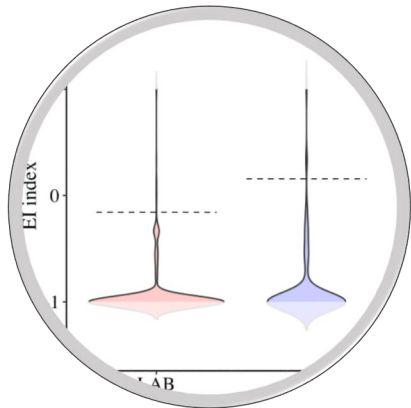
Recommendation 2: Establish a formal Leadership Rotational Program (LRP) for employees to pursue project-based assignments for six to twelve months at a time across different OUs.

Recommendation 3: Create a central hub to support existing and facilitate the creation of new Communities of Practice (CoPs).

RELATED FINDING: Bridging communication gaps between Labs and Non-Labs Organizational Units would be helpful in both work and advice networks.

Recommendation 4: Promote informal connections between silos by providing organizational, financial, and executive support for existing Employee Resources Groups (ERGs).
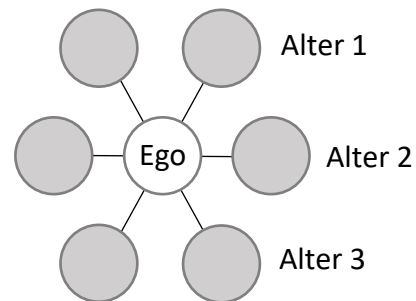
Race – Key findings

No significant differences between the networks of minority and non-minority employees for either work or advice networks. Some possible reasons:

NIST Federal Workforce
73% Non-Minority
27% Minority

The minority population in the NIST Federal Workforce is relatively small.

Ego
Alter 1
Alter 2
Alter 3

Race information was only available for egos.

- **Non-minority** (White)
- **Minority** (American Indian, Asian, Black, Hispanic, Native Hawaiian, Other)

Participants' race was collected in a binary way (i.e., minority/non-minority).

Race – Recommendations

Credit: Pixabay

Credit: Pixabay

Recommendation 5: Consider mapping the advice ego networks of employees using a shorter version of the NIST Interactions Survey in a post-pandemic future centered around the advice network and attributes of interest given the findings in this study.

RELATED FINDING: Mapping advice ego networks in a post-covid time and capturing differences in the networks among different minority groups might provide valuable information.

Recommendation 6: Focus on racial and ethnic nuance when assessing employee ego networks. We recommend investigating whether differences exist in the advice networks among minority subgroups (i.e., American Indian, Asian, Black, Hispanic, Native Hawaiian, Other).

Thanks! Questions?