

Portland LEVEL UP Conference
MARCH 2024



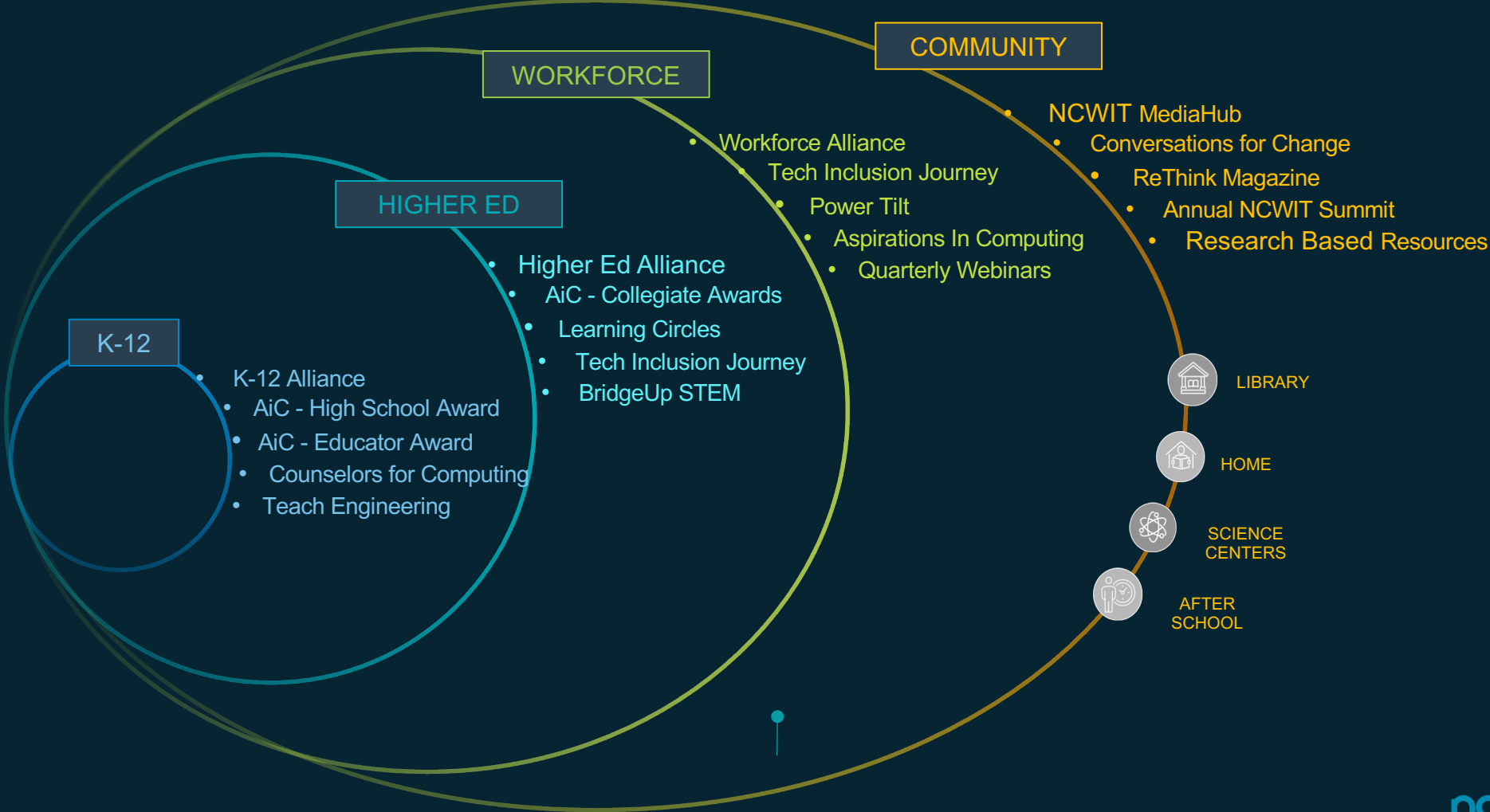
**THE
IDEA
YOU
DON'T
HAVE**

**IS THE
VOICE
YOU
HAVEN'T
HEARD.**

**NCWIT.
Inclusion changes
what's possible.**

Uniting over **1,600 organizations** in the national computing ecosystem (K-12 through career) NCWIT works to broaden participation in computing across the diverse range of intersecting identities (and especially those marginalized by gender), assuring they are meaningfully and influentially represented at all levels of computing.

As an Inaugural NSF BPC Alliance, We Achieve this Mission Through a National Community that NCWIT “convenes, equips and unites”



NCWIT Advances Approaches That:

- Are based in research,
- Are owned by organizational leadership,
- Focus on “fixing the system” not on fixing under-represented groups to fit into biased systems, and
- Implement strategic, systemic approaches to create inclusive cultures in technical classrooms and workplaces.

Observations

We Must Measure **Influence** as Well as Participation, Because:

- Roles deemed “influential” often attract top pay and career advancement,
- Technologists want their ideas to be taken seriously and help advance the discipline, regardless of who they are, and
- Groups with greater diversity solve complex problems better and faster than homogenous groups, driving innovation that better supports everybody.

Innovation Metrics: IT Patenting

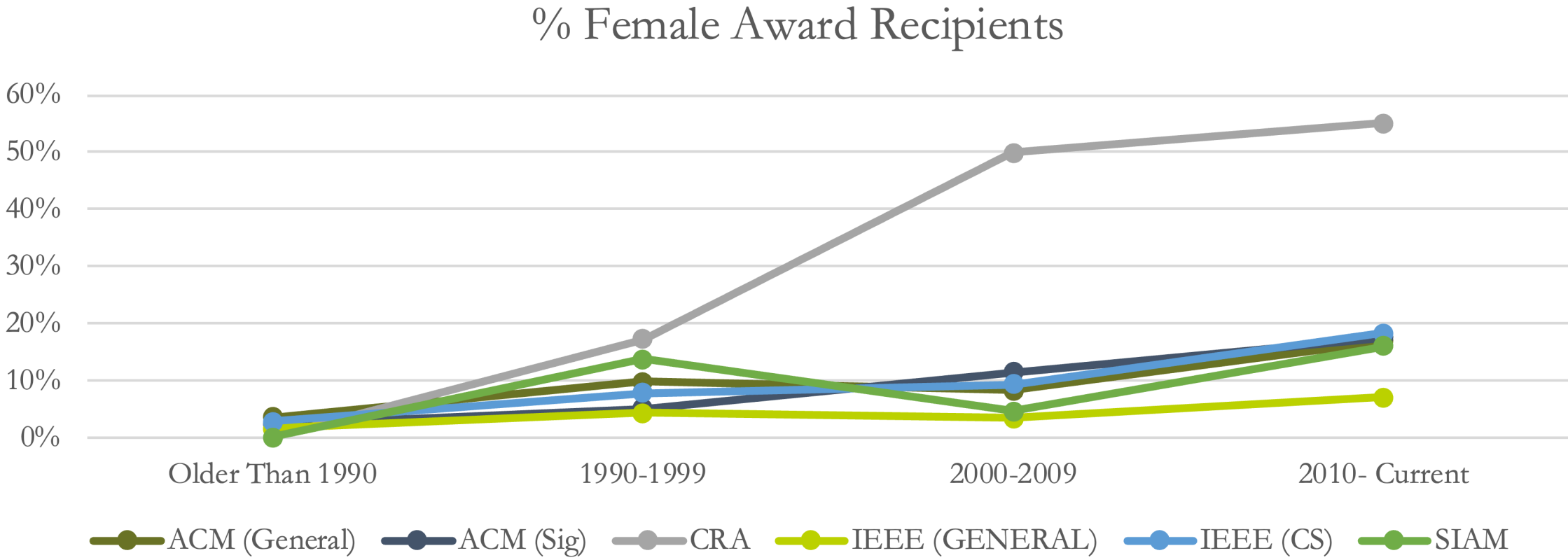
MEN AND WOMEN COLLABORATION STATISTICS BY CATEGORY

US INVENTED INFORMATION TECHNOLOGY PATENTS

		WOMEN ONLY	MIXED-GENDER TEAM	MEN ONLY
	# MATCHABLE PATENTS	%	%	%
ARTIFICIAL INTELLIGENCE/ MACHINE LEARNING	15,076	3.4%	21.8%	74.7%
COMMUNICATIONS	343,305	2.4%	11.3%	86.2%
COMPUTER HARDWARE	318,497	2.1%	13.5%	84.4%
COMPUTER PERIPHERALS	107,056	2.4%	14.5%	83.1%
COMPUTER SOFTWARE	273,472	3.1%	17.4%	79.5%
CYBER SECURITY	85,522	2.2%	14.3%	83.5%
ROBOTICS AND INTELLIGENT MANUFACTURING	18,541	1.9%	14.2%	83.9%
SEMICONDUCTORS/SOLID-STATE DEVICES	276,562	2.2%	13.3%	84.5%

Innovation Metrics: Computing Awards

MEN AND WOMEN COLLABORATION STATISTICS BY PROFESSIONAL SOCIETY



We Must Understand **Intersecting Identities** Because:

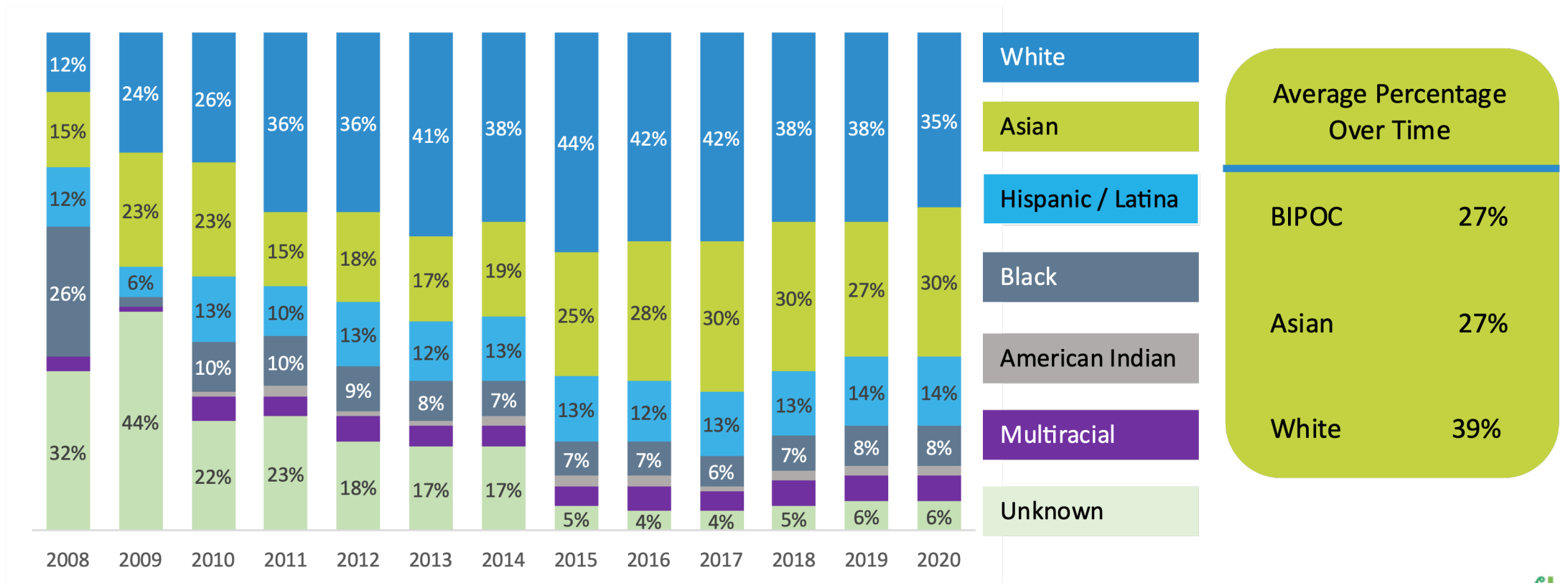
- Demographic groups are not homogenous. Our intersecting identities are shaped by race, class, gender and other dimensions of who we are, affecting our access to power and influence (formally and informally).
- An intersectional approach acknowledges that there are social systems in place that create systemic barriers and challenges for some individuals, while simultaneously providing privilege and power for others.
- An intersectional framework enables us to create more nuanced, relevant, and effective strategies that address the specific barriers marginalized groups face and activate the life experience and expertise they bring.

**THE WORLD
NEEDS YOUR
INVOLVEMENT
IDEAS
MENTORSHIP
PASSION
CREATIVITY
VOICES**

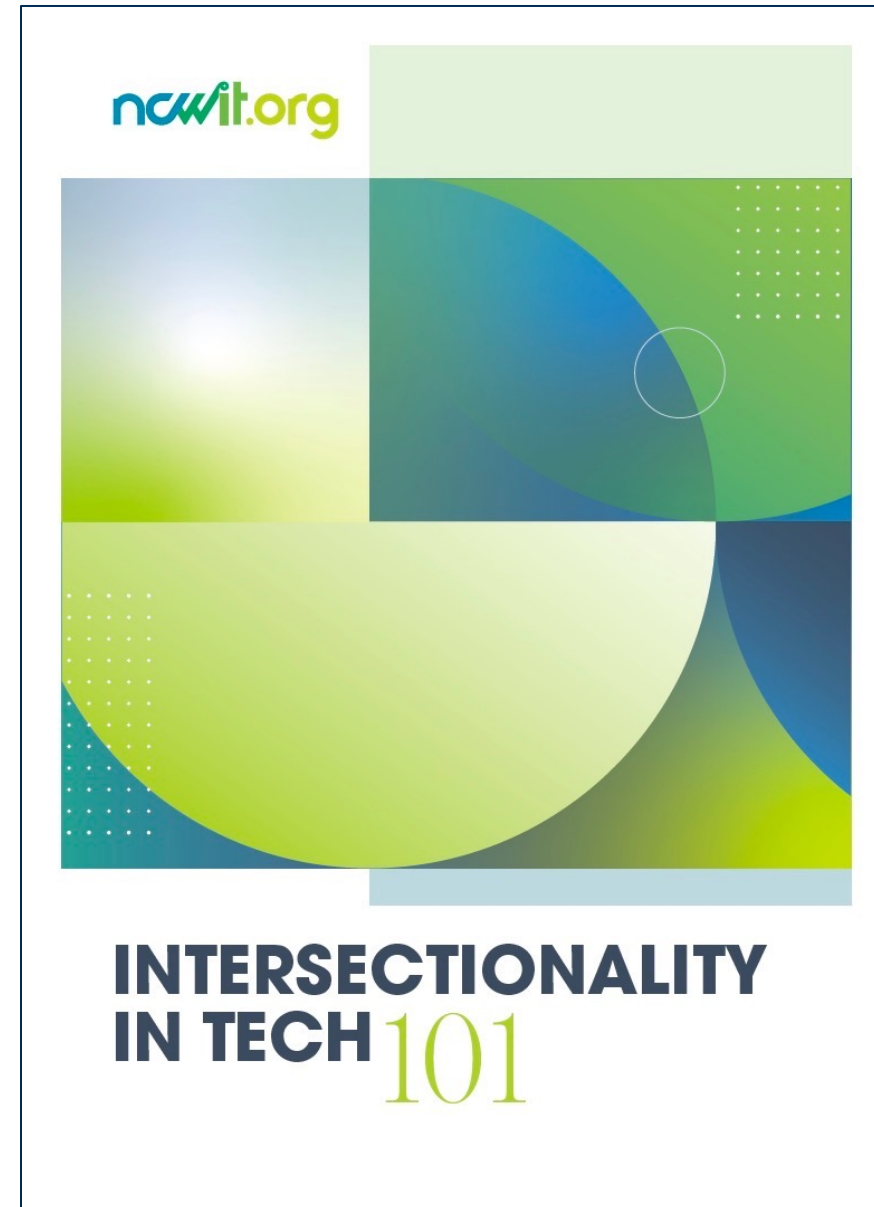


Breaking Down Metrics Is Essential – NCWIT Aspirations in Computing

Race / Ethnicity of Award Recipients Over Time



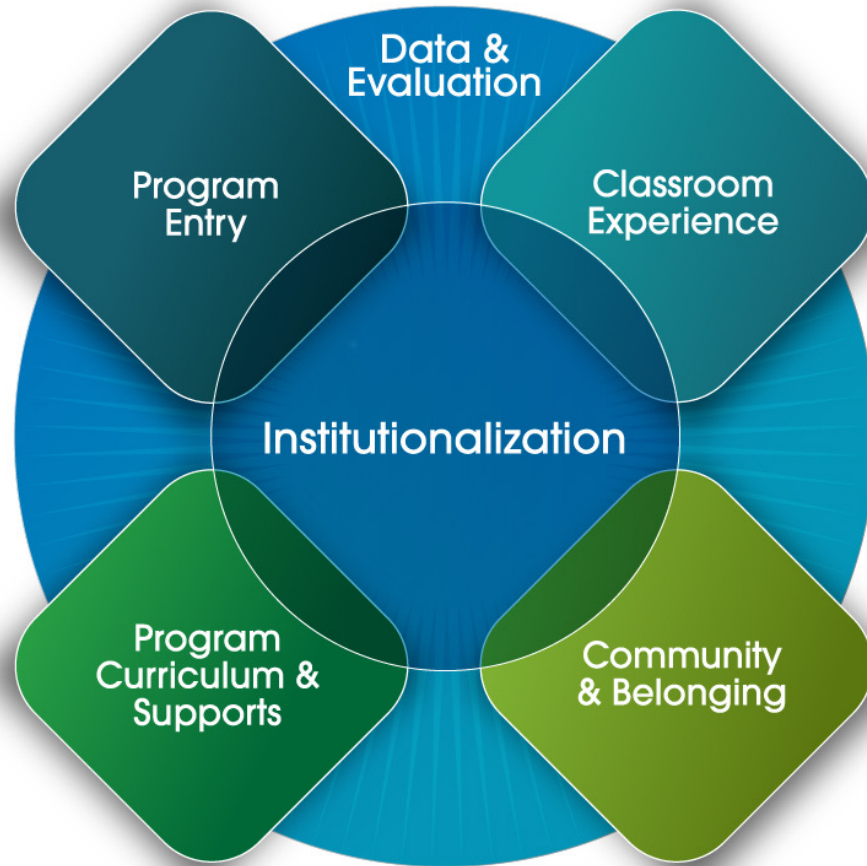
Informing Ourselves



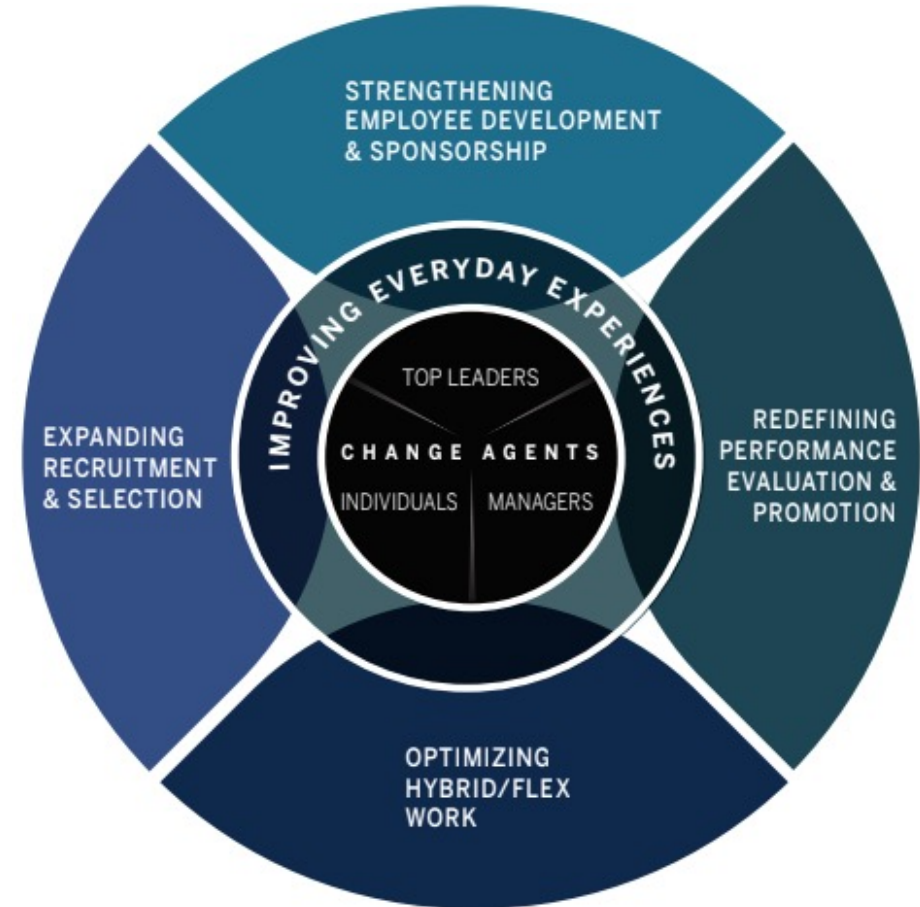
We Must Focus on Building **Inclusive Cultures** Through Systemic Change Efforts, Because:

- Inclusion in the classroom and the workplace, as well as on computing faculties, creates a sense of belonging that can translate to enhanced education, greater productivity, more innovation and research, and better decision-making,
- No one practice and no one person can create sustainable organizational change, and
- We need to focus on systemic change rather than “fixing” under-represented groups to fit into biased systems.

Systemic Change Models



UNDER-GRADUATE



CORPORATE

Inclusion changes what's possible!

The NCWIT Tech Inclusion Journey for Undergraduate Programs helps teams learn, assess, and improve on their journey to a more inclusive culture for their students.



START YOUR JOURNEY

Explore the TIJ-UP process.

Assess your program's progress on the journey to inclusivity.

View the results.

Identify next steps and start making change happen.

We Must **Partner** With Each Other, Because:

- There are already many successful efforts that can be leveraged,
- Scaling existing efforts creates strength in the computing community and can attract additional funding, and
- Who has enough money anyway?

The NSF BPC Alliances are Great Partners



<https://bpcnet.org/alliances/>

Summary

Together We Can

act with intention

+

build inclusive cultures

+

**increase the technical influence of
non-majority group members**

=

innovation

Ways to Engage with NCWIT (to join, write to info@ncwit.org)

intention

Inform - Access Online Practices, Tools and Webinars, Summit

Volunteer – Aspirations in Computing, Counselors for Computing

Advocacy – Be a Mentor/Sponsor, Speak at Events, Share Resources

inclusion

Systemic Action – Academic Learning Circles, Tech Inclusion Journey
Software Platforms

influence

Contribution – Research Efforts, Pilot Tools like Powertilt (*power dynamics on technical teams*).

Curiosity – Top Award Demographics, Sub-field Segregation, Patenting Rates, Demographics of Research Teams, Research Papers