



tnc24

RENDEZVOUS À RENNES
Rennes, France | **10-14 JUNE 2024**

BOF: Gender Equity

Brenna Meade, Indiana University

Kate Robinson, ESnet



Co-funded by
the European Union



Diversity and STEM - January 30, 2023

Women, Minorities, and Persons with Disabilities

Statistical information about the representation of these three groups in STEM employment and science and engineering education. A formal report is issued every two years.

[Link to Full Report](#)



NSF STEM Report - Jan. 30, 2023 - Key Takeaways

STEM Workforce and Education:

- Among the college-educated workforce in S&E occupations in 2021, women's representation ranged from 61% of social and related scientists to 16% of engineers.

S&E Degrees:

- In 2020, women earned 66% of bachelor's, 67% of master's, and 60% of doctoral degrees in the social and behavioral sciences.
- In 2020, women were underrepresented among degree recipients at all degree levels in physical and earth sciences, mathematics and computer sciences, and engineering.



NSF STEM Report - Jan. 30, 2023 - Key Takeaways cont.

As seen in the gender pay disparity across broad STEM occupation types, male STEM workers typically make more than female STEM workers regardless of whether they have an advanced degree.

The median wage and salary earnings for men with at least a bachelor's degree was \$97,000 in 2020, compared with \$74,000 for women in the same education category.

In the skilled technical workforce, men's median earnings (\$50,000) were higher than women's median earnings (\$41,000).



Women in IT Networking at SC (WINS)

- The Women in IT Networking at SC (WINS) is a multi-year program initially funded by the National Science Foundation (NSF). *
- Was developed for addressing the prevalent gender gap that exists in Information Technology (IT), particularly in the fields of networking engineering and high-performance computing (HPC).
- Collaborative project managed by:
 - **University Corporation for Atmospheric Research (UCAR)**
 - **Energy Sciences Network (ESnet)**
 - **Indiana University**
- It was originally introduced as a pilot program** in November 2015 at the SC15, and has supported volunteers for SC16 - SC24.



WINS Activities

- Enables 3-8 women per year to participate in SCinet, a unique, hands-on experience in building an operational and research network from the ground up for the annual Supercomputing Conference (SC)
- Selected by a committee of experts and rigorously reviewed and evaluated
- SCinet provides an ideal professional development opportunity for engineers and technologists looking for direct access to the most cutting-edge network hardware and software.
- Gives the opportunity to work side by side with the world's leading network and software engineers, and the top network technology vendors.
- Professional development activities - fund WINS participants to attend and present at conferences



What is SCinet?

2 distinct but interconnected networks built by volunteers and donated equipment

- Production network providing all wired and wireless internet access for attendees and exhibitors
- Research network in support of the Networked Research Exhibition (NRE) and SCinet's Experimental network projects (XNET).

1 year to design,
1 month to build,
1 week to operate,
1 day to teardown

WINS Program Goals



- Expand the skill sets, professional network and communications skills, including public speaking, for the participants.
- Provide technical training that is applicable and valuable to the participants' home institution.
- Increase diversity in the SCinet volunteer pool.
 - Since SC20 preference has been given to applicants who are historically underrepresented in the Information Technology field.
- Raise awareness of the issue of fewer women in IT.
- Gather program information, including candidate metrics and SCinet surveys (mentors and participants), to better understand gender diversity in the network engineering community and use the information to develop a sustainable program.

Benefits of the WINS Program



For the home institution:

- Attend and contribute to high-profile conference.
- Receive mentoring from industry professionals.
- Represent and promote your home institution to the outside world.
- Real-world exposure to new and different challenges.
- Bring back experience and ideas to team members.
- Increase diversity in the networking field.

For the participant:

- Build, test and tear down a high speed research network in 3 weeks
- Experience with different types of equipment, including some that is experimental.
- Working with other professionals.
- Working and spending time with a team of female professionals.
- Working with a team that is supportive and welcoming.
- Making professional contacts.
- Attending the Supercomputing conference and seeing groundbreaking research.
- Develop professional network within the community.



Brenna Meade

- **Program
Director, IU**



Kate Robinson

- **Lead, ESnet**



Marla Meehl

- **Manager,
UCAR**



Wendy Huntoon

- **Lead Selection
Committee, AIHEC**



Jason

Zurawski

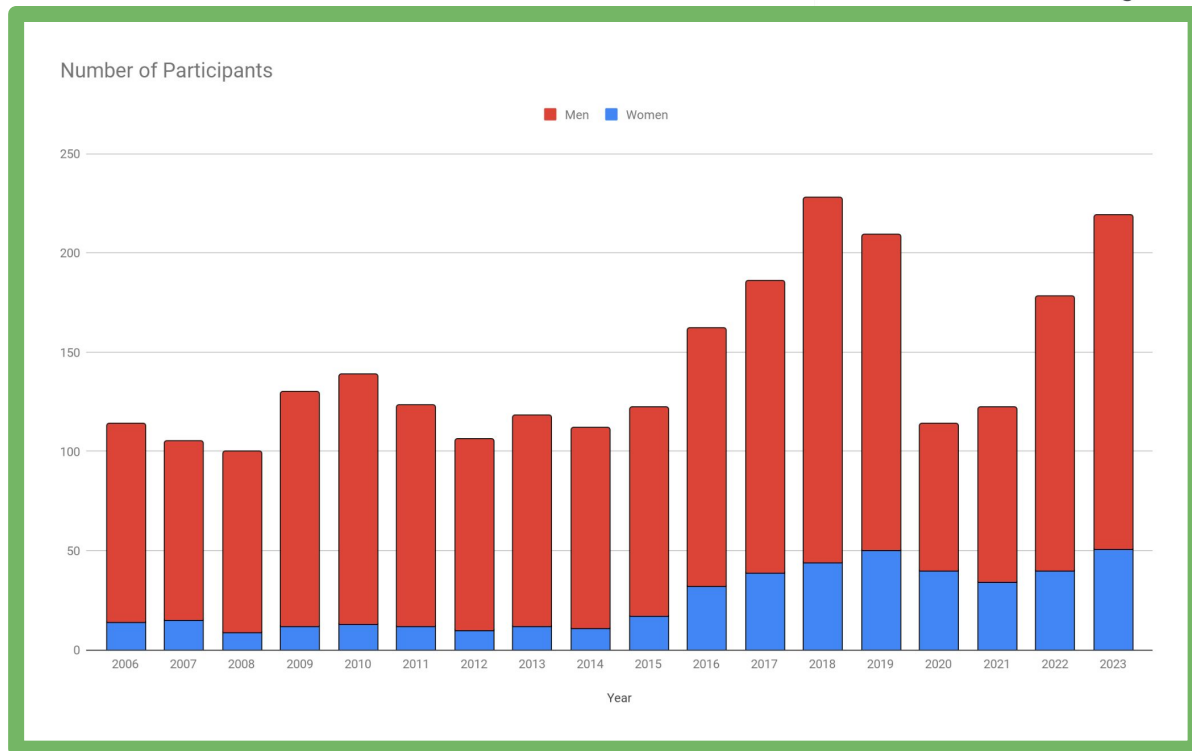
- **WINS Team,
ESnet**

2023 WINS Participants



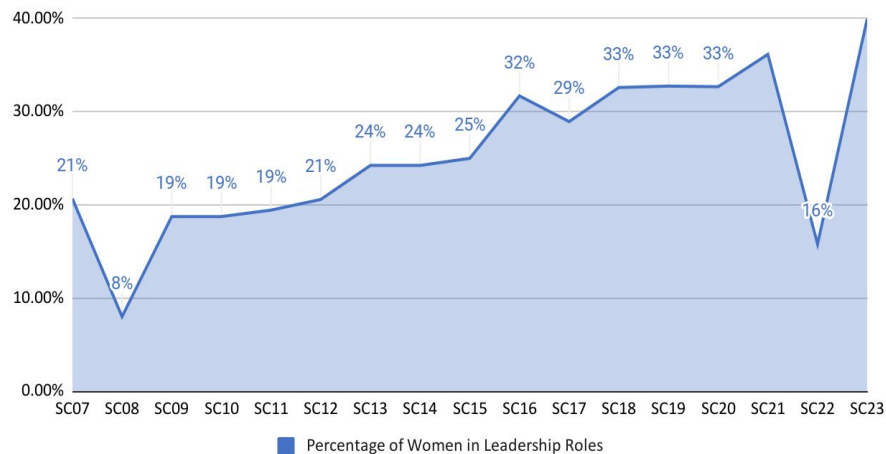
Impact on SCinet

- The percentage of women participating in SCinet has increased significantly since the program started in 2015, both in the number of women participating and the percentage of women on SCinet in general.
- 2007: 15 of the 105 (14.2%) volunteers were women
- 2023 : 51 of the 219 (23%) volunteers are women with 17 of them in the WINS program.

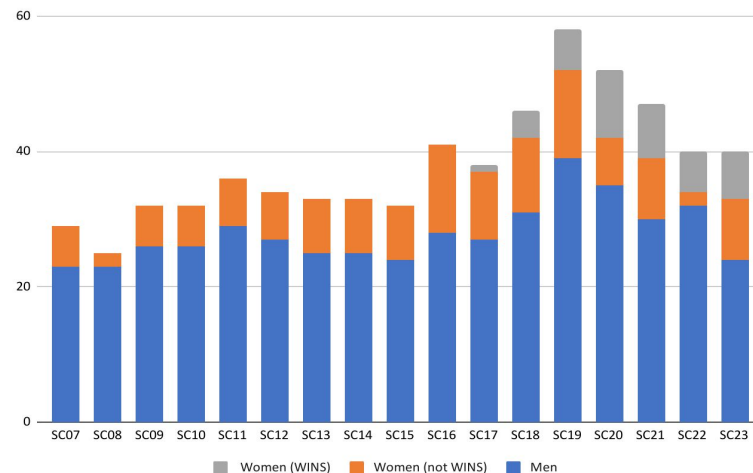


Impact on SCinet Leadership

Percentage of Women in SCinet Leadership Roles



SCinet Leadership



- The percentage of women in SCinet leadership has grown from a low of 8% for SC08 to 19% for SC23.
- Women from the WINS program assumed SCinet leadership roles starting in SC17, two years after the program began.
- For SC23, 7 WINS awardees have leadership roles.

Apply for WINS!!!!

WINS is now open to **INTERNATIONAL** participants !!!

Applications Open : December 2, 2024

Applications Close : January 31, 2025



Thank you!



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For more information about the WINS
program: <http://women-in-networking.net/>



Women in IT Networking at SC