The background of the slide is a grayscale image of a circuit board. It features a network of black lines representing traces, with several circular pads and vias. The pattern is symmetrical and geometric, typical of printed circuit board (PCB) design.

Aspirations in Computing

Panhandle STEM Conference, July 23-24, 2018

Presented by:

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Aspirations in Computing

Let's Look at Some Facts

Source: NCWIT -- <https://www.ncwit.org/resources/numbers>

Crisis in Talent . . .

- Number of U.S. computing-related job openings expected by 2026 – 3.5 million or 3,500,000
- Percent of these jobs that could be filled by U.S. computing bachelor's degree recipients by 2026 – 17%
- Simple arithmetic yields nearly 3 million computing jobs will go begging for bachelor's degree holders
- Market place opportunities in computing at an all-time high – simple micro-economics in action means very high salaries for a very limited supply of properly trained talent irrespective of gender, race, etc.

Crisis in gender . . .

2017 demographics for women in the workforce

- 57% of professional occupations held by women
- 26% of professional computing occupations held by women
- 17% of Fortune 500 Chief Information Officer (CIO) positions held by women

Crisis in gender . . .

2017 demographics for women taking AP exams

- 56% of AP test takers were female
- 47% of math AP test takers were female
- 23% of Computer Science AP test takers were female

Crisis in gender . . .

2016 demographics for bachelor's degrees earned

- 57% of the all recipients were female
- 19% of Computer and Information Sciences recipients were female
- 18% of Computer Science recipients were female *contrasted* with 37% in 1985

Crisis in gender/ethnicity . . .

2017 demographics for women in computing workforce – remember 26% total

- 3% were African-American vs. 12.7% of entire workforce
- 5% were Asian
- 1% were Hispanic vs. 17.1% of entire workforce

2018 reality check . . .

- At WTAMU percentage of female students remains overall below 10%
- At WTAMU most CS students have contract in hand by summer between junior and senior year AND 99% of all graduates have job immediately upon graduation
- All CS students are aggressively recruited beginning in their freshman year by the likes of Bank of America, BMC Software, CA Technologies, CGI, Experian, Fidelity Investments, Google, IBM, Texas Instruments, Visa, etc. Female students are super-aggressively recruited.
- Summer internships offering \$25 to \$35 an hour for 10 to 12 weeks including housing for the duration and transportation to/from, especially for more distant locations.
- Starting salaries for 2018 graduates appear to be ranging \$75K to \$90K and better with signing bonuses of \$5K to \$10K

What can you do and what
resources are available?

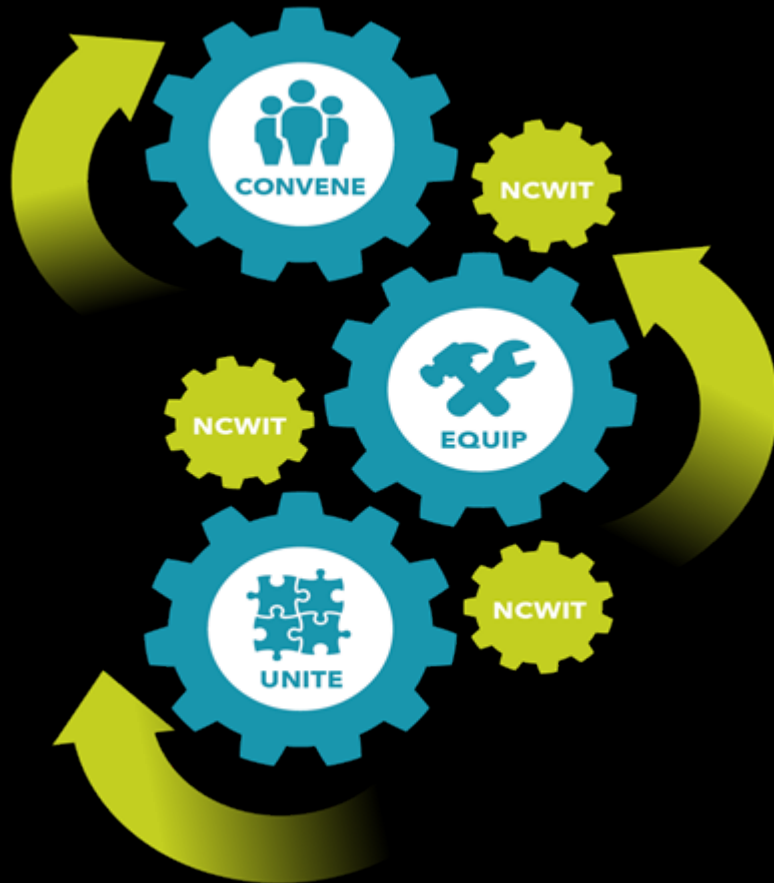
NCWIT

national center for

women &

INFORMATION
TECHNOLOGY

NCWIT – Change Leaders



NCWIT was established in 2004, with support from the National Science Foundation, with a mission to **significantly increase girls' and women's meaningful participation** in computing.

NCWIT - Equips

free,
online research-based
resources







<https://www.ncwit.org/resources>



The **NCWIT Aspirations in Computing Community** provides ongoing support and encouragement to nearly 10,000 technical women, resulting in long-term impact on women's participation in computing. AiC Community members are within an expansive network of peers, volunteers, and NCWIT Alliance member organizations who offer exclusive access to scholarships, internships, and professional work. These computing-related opportunities allow AiC Community members to strengthen their leadership, technical, and entrepreneurial skills, further preparing and motivating them to participate in the computing workforce.

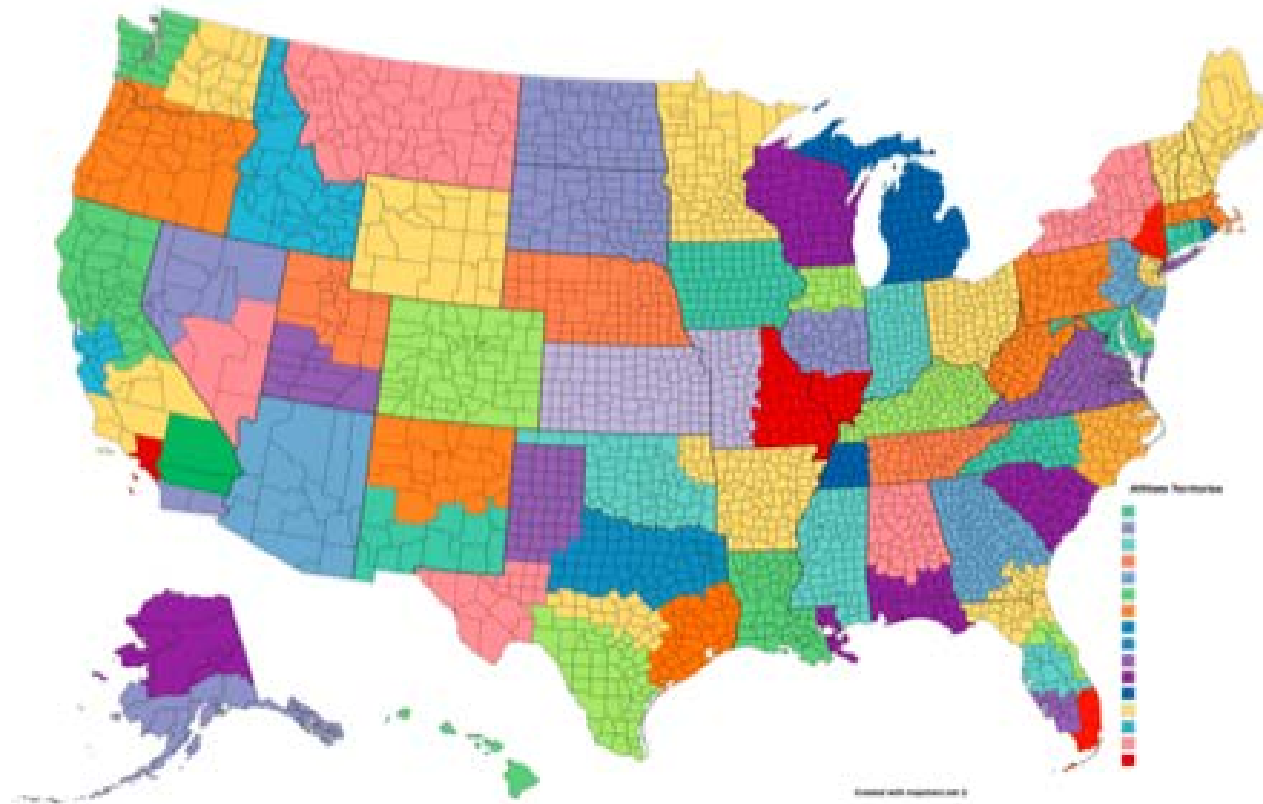


AiC Awards: Identifying and Honoring Technical Women and Their Influencers

K-12	HIGH SCHOOL <i>The high school awards include both national and local recognition in 75 regions.</i>		COLLEGE
			
<p>NCWIT AspireIT connects high school and college women with K-12 girls to teach programming and computational thinking fundamentals in fun, creative environments.</p>	<p>The NCWIT Award for Aspirations in Computing 9th-12th grade women who are active and interested in computing and encourages them to pursue their passions.</p>	<p>The NCWIT Aspirations in Computing Educator Award publicly celebrates formal and informal educators who encourage 9th-12th grade women's interest and ability in computing.</p>	<p>The NCWIT Collegiate Award honors undergraduate and graduate women whose technical contributions to projects demonstrate a high level of creativity and potential impact.</p>
<p>AiC Community: Encouraging Persistence Into Computing Education and Careers</p>			
<p>9th Grade through College+</p>			

Aspirations Affiliates

50 States, Puerto Rico, USVI, Guam



The logo is a blue circle with a white arrow pointing up and to the right. Inside the circle, the text "NCWIT" is in small yellow letters, "Aspirations in Computing" is in white, and "EDUCATOR AWARD" is in yellow.

NCWIT
Aspirations in
Computing
EDUCATOR AWARD

CALLING ALL

**teachers, counselors,
administrators, mentors, or
other influencers who support
technical 9th-12th grade women!**

Apply for the NCWIT Aspirations in
Computing Educator Award:
<http://bit.ly/AiCEdAward>.



CALLING ALL
hackers, coders, and
9th-12th grade women!

Apply for the NCWIT Award for
Aspirations in Computing:
<http://bit.ly/AiCHSAward>.

Process and where you can make a difference

- Starting Sept. 1, applications open for high school girls ages 15 up. Please note that this initiative is for “aspirations” – meaning some demonstrated desire to be in computing. We know that many girls have financial challenges, little family support, etc. Do they demonstrate real aspirations to , perhaps, be the first family member to go to university?
- Your help in guiding them through the process can make the difference. And your willingness to give them a recommendation.
- Applications close in October or November. Then applications are reviewed with winners and runners up selected
- Similar process for teachers, counselors, etc.

And then in spring – Awards Ceremony

- In past held on WTAMU campus in conjunction with a technology outreach event – sometime February through early April
- YOU can make a profound difference in the lives of these girls!
- Resources

<https://www.aspirations.org/aspirations-community/texas-panhandle-plains>



Named after TPWD region designation – includes all of Regions 16 and 17

That's all

Questions?

Comments?

Observations?

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Presentation available on github -- <https://github.com/HHaiduk/thunder>