WHO WE ARE
NCWIT is the National Center for Women & Information Technology, a non-profit organization chartered in 2004 by the National Science Foundation to increase the participation of girls and women in computing. Before NCWIT was formed, programs focusing on women and computing (K-12, post secondary, or corporate) existed mostly in isolation, without the benefit of shared best practices, effective resources, communication with others, or national reach. Today, these programs are part of the NCWIT community, where a “change leader network” of both men and women access evidence-based tools and resources and participate in an action-oriented national community of events and projects. Together we are having a far greater impact than if institutions acted alone.

WHY WE EXIST
Although women today comprise half the world’s population and more than half of the U.S. professional workforce, they play only a small role in inventing the technology of tomorrow. Capitalizing on the power of gender diversity can yield a larger and more competitive information technology (IT) workforce, and in a world dependent on innovation, it can enable the design of technology that is as influential and extensive as the populations it serves.

WE ARE CHANGE LEADERS
NCWIT convenes and provisions its rapidly growing coalition of over 575 prominent corporations, academic institutions, startup companies, and non-profits, grouped into Alliances (K-12, Academic, Workforce, Entrepreneurial, and Affinity Group). NCWIT Alliances work collaboratively throughout the year, and convene annually at the NCWIT Summit (www.ncwit.org/summit).

WE ARE RESEARCH BASED
NCWIT equips people with research-based resources, building capacity to help them implement change, raise awareness, and reach out to critical populations. NCWIT provides resources for reform at every level that are attractive, easy-to-use, and free. These include data, research reports, practices, curriculum materials, comprehensive toolkits, posters, workbooks, talking points, webinars, and videos.

WE TAKE ACTION
NCWIT campaigns unite our members in action-oriented efforts such as building a national female talent pipeline for computing (NCWIT Aspirations in Computing), supporting awareness and training for professional school counselors (Counselors for Computing), and changing the image of computing (Sit With Me).
STRENGTHEN YOUR TECHNICAL WORKFORCE WITH WOMEN

- Women, who earn only 18% of computing-related degrees, represent an untapped talent pool that can fill the growing number of technical occupations.
- Research shows that groups with greater diversity solve complex problems better and faster than homogenous groups.
- Technology’s ubiquity in our lives makes it critical that the people who invent technology are as diverse as the people who use it.

RESULTS

- **Member Engagement** — 95% of members report finding NCWIT membership useful to their organization, and 94% report finding their NCWIT membership personally useful.
- **Research Brand** — NCWIT has created more than 150 research-based resources, data sheets, tool kits, practices, etc., which are available at the NCWIT website.
- **National Reach** — Through its vast member network, the K-12 Alliance has the potential to reach 100% of the girls in the United States.
- **Educational Pipeline Growth** — over 14,000 young women have registered at the NCWIT Aspirations in Computing online portal, with more than 3,300 recognized in all 50 states (1,000 in 2014 alone). The majority of college-age Award winners who responded to our survey (83%) are majoring or minoring in STEM, and 57% are majoring or minoring in computer science or computer engineering.
- **Increased Enrollments** — 62% of NCWIT’s Academic Alliance members experienced an increase in female undergraduate enrollment from the year they joined, to the 2011-2012 school year.

PLEASE JOIN US

NCWIT offers opportunities for engagement suited to a variety of goals and activities related to girls and women in computing: recruitment, retention, promotion, outreach, education, brand recognition, company culture, and advocacy. Partnering with NCWIT signals commitment to the national priority of increasing U.S. participation in STEM (science, technology, engineering and math) education and careers. Your participation with NCWIT helps build a national (and increasingly international) infrastructure that results in a broad, immediate impact. Corporate sponsorship and individual donations for NCWIT match financial support from the National Science Foundation, creating a true public-private partnership.

To learn more, please visit [www.ncwit.org](http://www.ncwit.org).
The NCWIT Academic Alliance brings together nearly 750 distinguished representatives from academic computing programs at more than 275 colleges and universities across the country — spanning research universities, community colleges, women’s colleges, and minority-serving institutions. Academia is our future and NCWIT’s community allows networking and visibility to members and sponsors. Charged with implementing institutional change for computing in higher education, the Academic Alliance provides feedback on NCWIT programs, contributes and adopts effective recruitment and retention practices, and serves as a national agent of change.

NCWIT Academic Alliance membership has increased in numbers and diversity, as evidenced by the chart below.

“There is a greater awareness of our university’s Computer Science program within the community. We have received positive feedback from multiple parents and students indicating that they or their children are now considering applying to this university to study computer science.”

~ NCWIT AA Member

Find out more about the Academic Alliance at www.ncwit.org/aa.
KEY RESULTS

- **Increased Enrollments.** Sixty-two percent of NCWIT’s Academic Alliance members experienced an increase in female undergraduate enrollment, from the year they joined through the 2011-2012 school year. Over a four-year period, members of NCWIT’s Academic Alliance have had higher rates of female enrollment in computing majors than non-members.

- **NCWIT Academic Alliance Seed Fund.** Nearly 12,000 K-16 students have been reached by Alliance members through programs funded by the NCWIT Academic Alliance Seed Fund (sponsored by Microsoft Research), with over $415,000 being distributed over the past years.

- **NCWIT Undergraduate Research Mentoring Award.** More than 1,500 students have been mentored in their undergraduate research by Academic Alliance faculty who have been honored by the NCWIT Undergraduate Research Mentoring Award (sponsored by AT&T).

- **NCWIT Student Seed Fund.** Seventy student organizations have received funds from the NCWIT Student Seed Fund (sponsored by Symantec), and these groups have affected nearly 2,500 K-16 students.

WHY YOU SHOULD PARTICIPATE

- Learn the latest practices about recruiting and graduating women in your computing degree programs.
- Participate with national colleagues in advising NCWIT about the creation of novel programs and new resources.
- Apply for funding from the various seed funds and award programs generously funded by NCWIT sponsors.
- Attend the annual NCWIT Summit; learn the latest research, network with others, and form valuable partnerships.
- Recruit young women into your degree programs from the NCWIT Aspirations in Computing community; help honor these amazing young women at a local award event at your institution.

ABOUT NCWIT

The National Center for Women & Information Technology is a non-profit community of more than 450 prominent corporations, academic institutions, government agencies, and non-profits working to increase women’s participation in technology and computing. NCWIT helps organizations recruit, retain, and advance women from K-12 and higher education through industry and entrepreneurial careers by providing community, evidence, and action.
The Affinity Group Alliance (AGA) brings together international, national, and local affinity groups that provide support, networking, and professional development for thousands of technical women. The Alliance unites affinity groups and provides a platform for collaborating and sharing practices, distributing research, and providing outreach opportunities related to NCWIT programs and their communities.

Key initiatives for the AGA include:

- **Global Affinity Group Map** — catalogs women and girls in technology affinity groups by region, purpose, and audience
- **Corporate Inclusion Certification** — develops research and tools to support companies in their quest to stop the mid-career flight of technical women in technical roles
- **Participation in national computing outreach and awareness efforts**, such as Computer Science Education Week (CSEdWeek), NCWIT Aspirations in Computing, and Sit With Me

Find out more about the Affinity Group Alliance, including information on how to join, at [www.ncwit.org/aga](http://www.ncwit.org/aga).

“[Our affinity group] has always focused on developing and improving the individual woman. Times now demand we think beyond the individual good and focus on the greater good. Through the NCWIT AGA, Women’s IT organizations can work toward improving corporate environments across the US, benefiting today’s and tomorrow’s generation of female IT leader.”

~ NCWIT Staff
A sense of isolation and a need for inclusion can be factors in the mid-career flight of technical women and NCWIT is committed to addressing these issues through cross-alliance collaborations and a profound research effort.

~ NCWIT Member

RESULTS
- The newly-formed AGA has a diverse mix of over 30 member organizations, from affinity groups at corporations such as Microsoft, Intel, and Qualcomm to online, regional, and technology-based affinity groups.
- The AGA supports over 84,000 technical women working to support and advance women and girls in computing.
- The AGA has a global reach — 20% of the membership represent international affinity group chapters and members.

WHY YOU SHOULD PARTICIPATE
The Affinity Group Alliance provides an unparalleled opportunity for NCWIT to communicate directly with technical women and the organizations that employ them.

Member benefits include:
- Connections across groups for leveraged actions and ideas, resulting in increased returns to members and to other group stakeholders (such as corporations)
- Access to vetted NCWIT resources for outreach and professional development
- Publicity for local and national outreach efforts
- Contact with expert speakers and researchers

ABOUT NCWIT
The National Center for Women & Information Technology is a non-profit community of more than 450 prominent corporations, academic institutions, government agencies, and non-profits working to increase women’s participation in technology and computing. NCWIT helps organizations recruit, retain, and advance women from K-12 and higher education through industry and entrepreneurial careers by providing community, evidence, and action.

"To maximize the efforts of retaining technical women, the research NCWIT is leading in the study of mid-career flight of technical women in technical positions is unprecedented."

~ NCWIT Member
The NCWIT Entrepreneurial Alliance serves the needs of progressive startup and young companies, helping them build inclusive cultures, increase gender diversity, and develop research-based strategies for recruiting and advancing technical women in their organizations. This focus is especially important during the early years of a business, a time when a corporation establishes its DNA, forms its values, and takes root to grow. Additionally, young innovative companies can benefit from the increased technical contributions of women as collaborators and creators of new technologies.

WHY YOU SHOULD PARTICIPATE

- Accelerate innovation by building an inclusive culture that harnesses the collective intelligence of both women and men.
- Learn the latest practices about recruiting technical women into critical computing jobs.
- Plug into our national infrastructure and broaden recruiting reach by promoting job openings within the NCWIT community, including the NCWIT Aspirations in Computing Talent Initiative, a program reaching over 2,000 young women.
- Gain valuable visibility and create a reputation as a company committed to inclusion.
- Build your community involvement by participating in NCWIT outreach opportunities and awareness efforts, such as Sit With Me.

"Another terrific NCWIT Summit conference with tons of useful information, terrific networking opportunities, and great visibility for our startup company."

~ NCWIT Member
RESULTS

- Nearly 75 companies from around the country are members of this newly-formed Alliance.
- Regional clusters (currently in New York City, Boston, the Bay Area, and Boulder) provide increased localized member outreach, communication, networking, and leadership potential.
- More than 70 inspiring podcast interviews with technical women founders have been produced as part of the NCWIT Entrepreneurial Heroes interview series, sponsored by EMC.
- Active social media campaigns promote startup and young companies as positive places for technical women to work and thrive.
- Entrepreneurial Alliance outreach efforts offer presentations and panel discussions, including NCWIT TechTalks for member engagement, education, and awareness at technical conferences, women in tech events, startup hubs, and gatherings of entrepreneurs and founders of emerging businesses.

Find out more about the Entrepreneurial Alliance at www.ncwit.org/ea.

ABOUT NCWIT
The National Center for Women & Information Technology is a non-profit community of more than 450 prominent corporations, academic institutions, government agencies, and non-profits working to increase women’s participation in technology and computing. NCWIT helps organizations recruit, retain, and advance women from K-12 and higher education through industry and entrepreneurial careers by providing community, evidence, and action.

“NCWIT offers a strong camaraderie of people with common interests and goals and who are open to sharing their experiences and expertise. The goal of NCWIT is so important and matters so much.”

~ NCWIT EA Member
The NCWIT K-12 Alliance is dedicated to creating access to authentic, inclusive computer science education for every girl, everywhere. Made up of national girl-serving organizations, professional educator associations, academic institutions, and businesses, the K-12 Alliance leverages the reach and diversity of its members to create outreach programs and resources that recruit, retain, and advance more girls into computing nationwide. By working together, the distinguished K-12 Alliance members make a larger and more immediate impact than if they acted alone. Find out more at www.ncwit.org/k12a.

The K-12 Alliance is home to several of NCWIT’s flagship programs that serve multiple stakeholders including girls and an increasing number of boys, as well as adult influencers like counselors, formal and informal educators, and families:

- **Counselors for Computing (C4C)** equips professional school counselors with knowledge and resources they can use to advise students (especially girls) about computing education and careers.

- **The NCWIT Aspirations in Computing** program is a sweeping national talent development initiative for young women in computing, from kindergarten through graduate school.

- In partnership with the Televisa Foundation, NCWIT’s **Latinas in Technology** initiative encourages Latinas and their families to consider technology careers. This national campaign will grow the Latinas & Tecnología de la Información web resources and offer a multitude of in-person networking opportunities with K-12 Alliance members.

The K-12 Alliance also contributes to the production of key NCWIT research and resources, including:

- Talking points for adults to talk to young people about careers in computing (www.ncwit.org/youngwomen and www.ncwit.org/top10families)

- Advocacy materials concerning the critical need for computer science education in K-12 schools (www.ncwit.org/edjobsmap#resources)

- Reports about the current state of affairs for girls in computing, the key barriers to increasing girls’ participation in these fields, and promising practices for addressing these barriers (www.ncwit.org/thefactsgirls)
RESULTS

- The K-12 Alliance has the potential to reach 100% of U.S. girls through its vast national member network.
- In 2014, 93% of K-12 Alliance members reported distributing NCWIT resources to their members.
- More than 85% of K-12 Alliance members are actively engaged in at least one committee for a K-12 Alliance project.
- Over 90% of C4C workshop participants surveyed stated that the session improved their awareness on multiple aspects of computing education and careers.
- The NCWIT Aspirations in Computing program offers 61 high school award programs across the nation implemented by regional teams made up of more than 700 organizational partners.
- NCWIT AspireIT is on target to launch 400 local computing outreach programs inviting 10,000 K-12 girls into technology by 2018.

WHY YOU SHOULD PARTICIPATE

- Access and share practices with a national network of peer K-12 organizations.
- Connect with NCWIT’s other Alliances of corporate, academic, and startup institutions, as well as affinity groups, to advertise programs, acquire volunteers, etc.
- Participate in the annual NCWIT Summit.
- Contribute to the national dialogue about the future of U.S. computing education.
- Gain visibility through NCWIT’s communication channels.

ABOUT NCWIT

The National Center for Women & Information Technology (NCWIT) is a non-profit community of more than 600 universities, companies, non-profits, and government organizations nationwide working to increase women’s participation in computing and technology. NCWIT equips change leaders with resources for taking action in recruiting, retaining, and advancing women from K–12 and higher education through industry and entrepreneurial careers. Find out more at www.ncwit.org.
Although women today hold 57% of all professional occupations in the U.S. workforce, they play a small role in inventing the technology of tomorrow: women hold only 26% of professional computing occupations and 24% of Chief Information Officer (CIO) positions at Fortune 100 companies. The lack of women in computing represents a failure to capitalize on the benefits of diverse perspectives.

The NCWIT Workforce Alliance focuses on corporate change for more diverse and inclusive environments. Alliance members work to recruit, retain, and advance technical women in their own organizations. In turn, these members broaden innovation and drive economic growth in a world dependent on technical advancements.

**WHY YOU SHOULD PARTICIPATE**

- **Increase your ROI.** Research shows that companies with the highest representation of women in their management teams have a 34% higher return on investment than did those with few or no women. Additionally, a recent study determined that racial and gender diversity were associated with increased sales revenue, more customers, and greater profits.
- **Improve your technical development.** Studies find that groups with greater diversity solve complex problems better and faster than do homogenous groups.
- **Tap into the latest research** from corporate and academic experts. Access business-critical data. Leverage research-based practices for recruitment, retention, and advancement.
- **Influence NCWIT’s research agenda.** Define ways to improve efforts and create change. Shape benchmarking tools, and implement pilot programs.
- **Expand your talent pool.** Gain access to the NCWIT Aspirations in Computing initiative, a fast-growing source for female technical talent.
- **Help grow the U.S. computing talent pipeline and receive recognition for corporate philanthropy** by participating in national computing outreach and awareness efforts, such as Sit With Me, NCWIT Aspirations in Computing, CSEdWeek, Counselors for Computing, and more.
- **Build key relationships** with representatives from K-12, higher education, corporations, and startups. Connect with fellow Alliance members annually, face to face, at the NCWIT Summit, and virtually throughout the year.

“Thank you for coming in and teaching us about NCWIT. You changed the thinking of many of the employees here for the better.”

~ CEO and NCWIT WA Member
RESULTS
- The Workforce Alliance reaches over 2 million professionals through its vast membership of corporations.
- Ninety-four percent of Workforce Alliance members report having presented or published at least once on women in computing issues.
- Workforce Alliance members have advised NCWIT on the creation of over 35 evidence-based resources; they also help NCWIT advance the research base, concerning corporate technical women (e.g., female IT patenting).
- Over 50% of Alliance members are actively engaged with the NCWIT Aspirations in Computing Program, providing internships to participants, volunteering at local Affiliate Award events, and more.

MEMBERSHIP
A corporation may join NCWIT by making a $25,000 annual contribution. This is a member-imposed “carrying cost” used to cover the expenses of running the Alliance. Corporate members identify a small team of employees who serve as the interface team to the Workforce Alliance; we encourage a range of job functions on these teams — technical, HR, diversity and inclusion, etc. We also encourage both men’s and women’s participation.

Find out more about the Workforce Alliance at www.ncwit.org/wa.

ABOUT NCWIT
The National Center for Women & Information Technology is a non-profit community of more than 575 prominent corporations, academic institutions, government agencies, and non-profits working to increase women’s participation in technology and computing. NCWIT helps organizations recruit, retain, and advance women from K-12 and higher education through industry and entrepreneurial careers by providing community, evidence, and action.
NCWIT Aspirations in Computing is a talent development pipeline initiative designed to increase female participation in technology careers by providing encouragement, visibility, community, leadership opportunities, scholarships, and internships to high-potential, technically inclined young women. Since 2007 NCWIT has inducted more than 2,200 young women into the Aspirations in Computing community and helped usher them into careers in technology.

Find out more: www.aspirations.org or aspirations@ncwit.org.

Aspirations in Computing provides structured, long-term engagement and support for young women in technology, from middle school through high school and from college into the workforce.

Aspirations in Computing includes the following programs:

- **AspireIT** (middle school)
- **NCWIT Award for Aspirations in Computing** (high school)
- **Aspirations in Computing Educator Award** (high school)
- **Aspirations in Computing Community** (high school, college, and into the workforce)

“I really enjoy the NCWIT community! It’s so inspiring to see so many women doing awesome things in technology. Because of NCWIT, I’m not afraid to try new things and I’m excited for a future in CS.”

~ Award Recipient
RESULTS
- More than 2,200 young women from 2007 to 2013 have been recognized for their aspirations and achievements in computing and technology.
- More than 11,000 young women self-identify as interested in computing and technology.
- More than 50% of applicants in 2013 were non-white or of mixed race; 14% of applicants attended Title 1 (federally funded) schools.
- 71% of Aspirations participants in college are now majoring in a Computer Science or Engineering field.
- 50 states, Puerto Rico, the District of Columbia, and the U.S. Virgin Islands participate with Aspirations in Computing.
- 800 girls will receive 25,000 hours of programming through NCWIT AspireIT in its pilot year.
- More than 1,400 reviewers from academia, non-profit organizations, and corporations have participated.
- Over 900 young women inducted into the program in 2013 alone.
- Evaluation and anecdotal data show that the Aspirations in Computing program works. Award recipients consistently report:
  - greater confidence in their technical abilities
  - increased enthusiasm about computing
  - greater awareness of the career opportunities available to them

WHY YOU SHOULD PARTICIPATE
- Increase the visibility of your organization, while demonstrating your commitment to gender diversity.
- Access a pipeline of technically inclined young women.

WAYS TO GET INVOLVED
- Sponsor a local award event or the national Aspirations in Computing program.
- Encourage your employees to volunteer with Aspirations in Computing.
- Offer internships to Aspirations in Computing alumnae.

ABOUT NCWIT
The National Center for Women & Information Technology is a non-profit community of more than 450 prominent corporations, academic institutions, government agencies, and non-profits working to increase women’s participation in technology and computing. NCWIT helps organizations recruit, retain, and advance women from K-12 and higher education through industry and entrepreneurial careers by providing community, evidence, and action.

“...the great thing about the Aspirations in Computing Award, it encourages you to keep going, it’s about your potential...”
~ Award Recipient
NCWIT Pacesetters is the first, fast-track program of its kind, aiming to move the national needle for women's participation in computing. Company and university leaders work together across corporate and academic boundaries, committed to increasing their organization’s number of technical women at an accelerated pace. NCWIT Pacesetters employ innovative methods and set quantifiable goals to recruit untapped talent pools of “Net New Women” — technical women who would otherwise pursue non-computing careers or would be at risk of leaving.

“Net New Women” include technical women who may have received little or incorrect information about computing occupations and fields of study; may pursue a technical path, if given exposure or encouragement; or may have dropped out or changed careers due to bias, isolation, and other obstacles.

Adding “Net New Women” to the U.S. computing talent pool can yield a larger and more competitive workforce; research shows that groups with greater diversity solve complex problems better and faster than do homogenous groups.

Strategies executed by NCWIT Pacesetters include:
- active recruitment of female college students to computing majors
- changes to curriculum, pedagogy, and culture to improve retention
- development and promotion of mid-career options and workplace policies
- encouragement of women’s contributions to technical innovation

“Change doesn’t just happen. Having goals, a strategic focus, key company stakeholders involved, and a strong NCWIT team leading the way and pushing a bit from behind is crucial and leads to action!”

~ NCWIT Pacesetter
I, personally, have derived significant benefits from my work as a Pacesetter. Pacesetters gave me the motivation to try for a new degree program in which the Department of Computer Science will be offering a degree to students in the College of Arts and Sciences. This ‘holy grail’ has long been thought impossible to achieve and we are now just a few steps away from proving that stance wrong!

~ NCWIT Pacesetter

RESULTS
NCWIT Pacesetters held shared accountability for achieving a goal of recruiting or retaining 1,000 technical women in the U.S. computing workforce by 2012. They shattered this goal, reporting 1,685 “Net New Women.” NCWIT Pacesetters demonstrate that innovative strategies can work and pave the way for other organizations to follow.

Although individual organizational goals are held confidential, following are a few examples:

• One corporation doubled its number of female engineer interns.
• Another company piloted a highly successful workshop for over 100 mid-career female technologists to learn how to command presence in executive environments.
• Several universities increased participation of women in computing degree programs by 50-100%.
• A university instituted a new four-year degree program that is attracting double majors in the area of neuroscience, film, and law.

NCWIT Pacesetters also influenced the inception of Sit With Me, a national advocacy campaign that provides a platform to raise the visibility of technical women and acknowledge the valuable contributions of women in computing. Find out more at www.sitwithme.org.

GET INVOLVED
Pacesetter organizations work together in “cohorts” for two years. If you would like to be considered for the next Pacesetters cohort, please contact info@ncwit.org. Find strategies and planning guides to leverage your own efforts, and learn more about the NCWIT Pacesetters program at www.ncwit.org/pacesetters.

ABOUT NCWIT
The National Center for Women & Information Technology is a non-profit community of more than 450 prominent corporations, academic institutions, government agencies, and non-profits working to increase women’s participation in technology and computing. NCWIT helps organizations recruit, retain, and advance women from K-12 and higher education through industry and entrepreneurial careers by providing community, evidence, and action.

NCWIT Pacesetters is sponsored by NSF, Google, and Qualcomm.
In 2012, only 18% (or 8,800) of the 49,000 Computer and Information Sciences undergraduate degree recipients were women (and only 13% at major research institutions, which typically have larger graduation pools). NCWIT Extension Services for Undergraduate Programs (ES-UP) addresses this crisis by providing change agents within institutions of higher education with evidence-based techniques and associated resources for recruiting and retaining women in computing degree programs. ES-UP focuses on helping build better systems, rather than simply helping women to deal with the existing ones.

ES-UP provides customized consultation to academic departments (“clients”) to help them develop and move forward on their high-impact reform efforts. Each client is matched with an expert Extension Services Consultant (ESC) who uses NCWIT-developed resources to assist them in identifying opportunities, resources, allies, and assessment plans to track progress. ESCs typically work with a client for one to two years to provide on-going advice and resources.

“NCWIT Extension Services has been able to accomplish important change at participating organizations. ESCs provide a motivational mechanism which helps the client keep pushing forward as well as an informational mechanism to provide the client with the right information at the right time for the right problem.”

~ Elizabeth Litzler, University of Washington Center for Workforce Development Director for Research and NCWIT External Evaluator

ES-UP has also developed a Tracking Tool — a web-based database and presentation tool — that allows clients to easily submit data about their programs (e.g. admissions, enrollment, and graduations by gender) and to compare their data to peer institutions. The Tracking Tool also lets users create a variety of graphs that can be easily shared with constituents and decision-makers. Currently, no similar data set exists that tracks this level of detail about the gender composition of undergraduate programs of computing.

ES-UP forms, launches, and tracks “client cohorts.” Currently, two institutional cohorts are active: one funded by a grant from the National Science Foundation and the other funded by a gift from Google. For the NSF project, ES-UP is partnering with ENGAGE (Engaging Students in Engineering) to pair computing and engineering departments to work as cooperative teams. The Google-funded cohort focuses on high impact strategies for making quick change in large, high profile programs of Computer Science. These funds allow ES-UP to provide services without cost to our clients.
KEY RESULTS (ES-UP CLIENTS, COMBINED)

- Increased the percentage of women graduates by 65% over baseline between 2007 and 2013.
- Graduated 338 women with a BS in CS in 2007 and 557 in 2013. Overall, the increase in graduation rates from 2007-2013 was 3% (from 11% to 14%).
- Created new faculty and staff positions as well as minors, improved course requirements for majors, and developed new recruitment resources aimed at creating a more welcoming and thriving atmosphere for all underrepresented students.
- Used ES-UP Tracking Tool data to set and track concrete, realistic goals.
- Created and implemented strategic plans for recruiting and retaining women students.

WHY YOU SHOULD PARTICIPATE

- Work with a dedicated Extension Services Consultant (ESC) to help you set goals, develop your recruitment and retention plans, use NCWIT resources, apply for targeted funding, and evaluate your outcomes. ESCs help you get motivated, stay focused, and develop the skills and knowledge you need to keep moving forward.
- Connect with computing faculty across the country through annual in-person meetings.
- Learn how to customize and effectively deploy NCWIT’s research-based approaches.
- Establish pipelines with local schools, universities, and community members.
- Become eligible for the NCWIT Extension Services Transformation Awards.

Find out more at www.ncwit.org/extensionservices.

“[the ESC] and this service had not been here, the problems would still be here, and we would be working in isolation, and we wouldn’t have made the progress we’ve made to date. Over the next few years, we’ll see great results and all can be attributed back to this service and to [the ESC].”

~ ES Client

“NCWIT ES administered the Student Experience of the Major survey and provided analysis, which exposed several issues concerning student retention and support… Thanks so much for all your efforts. Quantitative information is powerful ammunition in influencing decision-making.”

~ ES Client

ABOUT NCWIT

The National Center for Women & Information Technology is a non-profit community of more than 575 prominent corporations, academic institutions, government agencies, and non-profits working to increase women’s participation in technology and computing. NCWIT helps organizations recruit, retain, and advance women from K-12 and higher education through industry and entrepreneurial careers by providing community, evidence, and action.
WHAT IS SIT WITH ME?
Sit With Me is a national advocacy campaign designed to encourage women in computing careers. Sit With Me seeks to raise the visibility of technical women by providing a gathering place for people (men, women, technical, non-technical) to acknowledge the valuable contributions of women in computing.

Sit With Me uses an iconic Red Chair to symbolize that women in technology need more seats at the table, that men and women can sit in support and solidarity for technical women, and that one highly visible action can instigate others.

WHY SWM?
By raising the visibility of women’s participation in technology, Sit With Me seeks to attract and retain more women in the field. Although women today comprise half the world’s population and more than half of the U.S. professional workforce, they play only a small role in inventing the technology of tomorrow. Fewer women are choosing technology and computing as a career path, and 56% of technical women leave in the middle of their careers to pursue other jobs.

As we look to compete globally and meet the world’s most pressing challenges, we must increase the role of women in technology. Capitalizing on the power of gender diversity can yield a larger and more competitive workforce and enable the design of technology that is as influential and extensive as the populations it serves.
RESULTS

• More than 1,140 photos posted to Flickr.
• More than 125 Sit With Me stories have been posted to the website from around the world.
• Notable public figures have sat in the red chair, including Jean Sammet, an ACM Fellow and retired computer scientist who’s well-known for her work on FORMAC; Sheryl Sandberg, Facebook COO; Brad Feld, Foundry Group venture capitalist; Hadi Partovi, founder of code.org; and Shaquille O’Neal, celebrity and retired NBA player.
• Companies such as Microsoft, Facebook, IBM, Google, Bloomberg, and Brocade have held internal Sit With Me events to generate support for technical women within their ranks.
• Higher education institutions such as Purdue University, Oregon State University, Murray State University, and Louisiana Tech have displayed the red chair on their campuses.
• More than 130 Sit With Me red chairs have been purchased through the manufacturer Emeco, with profits donated to NCWIT.

WAYS TO GET INVOLVED

• Tell us your story. Upload your words, photos, and videos to sitwithme.org. Then, share your story's link online.
• Download the toolkit. Start the conversation with provided key messaging and sample activities. Create promotional materials for your own Red Chair event with designed templates.
• Borrow, purchase, or find your own Red Chair.
• Celebrate without the chair. Check out our Sit With Me Stuff.

ABOUT NCWIT

The National Center for Women & Information Technology is a non-profit community of more than 450 prominent corporations, academic institutions, government agencies, and non-profits working to increase women’s participation in technology and computing. NCWIT helps organizations recruit, retain, and advance women from K-12 and higher education through industry and entrepreneurial careers by providing community, evidence, and action.
The NCWIT Counselors for Computing (C4C) program equips school counselors with up-to-date information and resources they can use to advise students, especially girls, about computing education and careers.

Counselors are influencers and gatekeepers. They counsel and encourage students in their education and career aspirations, advise them on course selections, and expose them to occupations through career fairs, job shadows, and internships. If girls are to get the exposure and encouragement they need to pursue computing, it is essential that counselors have the knowledge and resources they need to guide effectively.

OUR APPROACH
We partner with and build the capacity of groups that are intent on closing the gap between preparedness for careers (low) and opportunities for participation (high). We work with colleges and universities, businesses, youth-serving organizations, computer science educators, professional counselor associations, and others to bring C4C to counselors in communities where reform is underway and has implications for guidance.

With our partners we offer counselors professional development programs lasting from one hour to one day. In each, we localize the content of the program so it is immediately relevant to counselors. We share local data about CS education and careers, invite technical people to speak about their career paths and work, and ask young women to share their accomplishments in computing. We include interactive experiences, such as “Sorting Networks,” for counselors to try their hand at computing. We also give counselors C4C kits and have them explore scenarios in which they will share information with students, parents, school staff, and counselor colleagues.

RESULTS
To date, NCWIT has trained counselors in 11 states. In addition, we have provided over 30,000 individual resources to people in 43 states and distributed over 1,400 C4C kits to counselors and other educators in 2014 alone.

Counselors for Computing (C4C) is sponsored by the Merck Company Foundation.
WHAT COUNSELORS SAY
Counselors we work with report having a better understanding of computing, a broader sense of who is right for computing, and greater confidence to guide students toward computing classes and careers. Most importantly, in a reengagement survey, we found most of them take direct action. They say:

• “I have partnered with our AP Comp Sci teacher to advertise/ market/inform more about CS. We’re including information about CS (and STEM in general) in our career and college readiness curriculum lesson to all students.”

• “Our district plans to add computer science in four high schools next year. This year, we started an after school app and programming club for girls to build awareness and readiness for those classes.”

• “I realize now that a specific effort targeting girls must be made to get more girls into classes.”

GET INVOLVED
NCWIT C4C is an important adjunct to computer science education reform nationwide.

• Companies can fund the expansion of C4C into a national program so counselors around the country gain the knowledge and skills they need to guide students, especially girls, toward education and careers in computing.

• Universities and non-profits can address local outreach and computer science education reform goals by partnering with NCWIT to host C4C events and programs for counselors.

Find out more at www.ncwit.org/c4c.

ABOUT NCWIT
The National Center for Women & Information Technology is a non-profit community of more than 575 prominent corporations, academic institutions, government agencies, and non-profits working to increase women’s participation in technology and computing. NCWIT helps organizations recruit, retain, and advance women from K-12 and higher education through industry and entrepreneurial careers by providing community, evidence, and action.

Strategic Partners: NSF, Microsoft, Bank of America, Google, and Intel • Investment Partners: Avaya, Pfizer, Merck, Turner Broadcasting System, Inc., AT&T, Bloomberg, and Hewlett-Packard

Counselors for Computing (C4C) is sponsored by the Merck Company Foundation.
Tapestry Workshops (www.tapestryworkshops.org) train high school computer science teachers to attract and retain more and diverse students to computing.

Each workshop:

• explains the importance of diversity in computer science classes
• describes proven practices for increasing the number and diversity of students in high school Computer Science (CS) classes
• demonstrates teaching methods that engage students regardless of sex or ethnicity
• provides high-quality resources and field-tested practices
• discusses teacher challenges and how to overcome them

By focusing on teachers, Tapestry workshops produce measurable and ongoing improvements in computing diversity. Teaching the teacher ultimately affects many more high school students than direct intervention with students. By applying workshop recommendations, more than 80% of workshop participants report enrolling more CS students in general, and more female and underrepresented minority students in particular.

Free comments on follow-up evaluation forms typically express sentiments such as:

• “Had to request more computers in my classroom because there weren’t enough for all the students enrolled in computer science!”

• “Success! My one section of CS is packed to capacity, and the students — including all the girls — have reported having a great time doing our first few programming projects.”

• “I went from having no computer science classes to a class of 38 with 40% of those being female and 90% being URM and five students on a waiting list. I am so excited!”
RESULTS

- Approximately 560 teachers have received Tapestry Workshop training as of 2014 (360 since 2011).
- At least 4% of the 39,278 Advanced Placement (AP) CS test-takers in 2014 were taught by Tapestry Workshop participants.
- At least 5% of the 7,458 female test-takers in 2014 were taught by Tapestry Workshop participants.
- More than half of Tapestry participants reported an increase in their 2014 AP CS enrollments and attributed it to adopting Tapestry-recommended practices.
- The three inaugural Project Lead the Way professional development workshops for CS high school teachers incorporated Tapestry workshop presentations in 2013.

HELP BRING TAPESTRY TO YOUR LOCAL HIGH SCHOOLS

The National Science Foundation (NSF) provided funding to design and pilot Tapestry. Given its success and the critical nature of Tapestry content, the National Center for Women & Information Technology (NCWIT) seeks scale up funds to enable national coverage. To efficiently reach more of the 12,500 self-identified U.S. high school computer science teachers, we plan both online delivery and one-day face-to-face Tapestry sessions.

ABOUT NCWIT

The National Center for Women & Information Technology is a non-profit community of more than 575 prominent corporations, academic institutions, government agencies, and non-profits working to increase women’s participation in technology and computing. NCWIT helps organizations recruit, retain, and advance women from K-12 and higher education through industry and entrepreneurial careers by providing community, evidence, and action. Find out more at www.ncwit.org.

“We (myself and several attendees) founded the first local CSTA chapter in our state! Through that, we had organized several activities (sessions, presentations, CS education week activities) this past year.”

~ University Faculty Workshop Host