

# Advancing Women Technologists Into Positions of Leadership

Strategies for cultivating confident women leaders



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*The lack of advancement of women technologists is staggering. At current advancement rates, it will take 100 years for women in technical and non-technical roles combined to reach parity with men at the C-level.<sup>1</sup>*

1. LeanIn.Org and McKinsey, "Women in the Workplace," (LeanIn.Org and McKinsey, 2015).

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# Introduction

Amid all the data on gender parity in the technical workforce, one current statistic stands out: the representation of women technologists declines by 50% from entry to mid to senior and executive levels. At Anita Borg Institute, we believe this rate of advancement is unacceptable.

It's time for organizations to move beyond restating the problem and start implementing solutions. Anita Borg Institute has researched, curated, and developed strategies proven to help organizations advance women technologists into positions of leadership and influence. This paper outlines these strategies and offers recommendations for achieving results.

## THE BUSINESS CASE FOR MORE WOMEN IN TECHNICAL ROLES

The business case for gender diversity has been well documented. At Anita Borg Institute, we start with the belief that having more women in technical roles across every level in the organization is not just a social courtesy—it's a business imperative.

### BUSINESS BENEFITS OF MORE WOMEN IN TECHNICAL ROLES:

- Improved operational and financial performance
- Increased innovation
- Better problem solving and group performance
- Enhanced company reputation

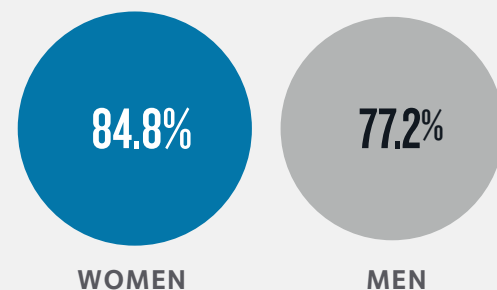
## MEN AND WOMEN DON'T EQUALLY BELIEVE THE BUSINESS CASE

Though data overwhelmingly supports the business case for gender diversity, men and women don't equally believe the findings. Data from Anita Borg Institute's Top Companies for Women Technologists 2016 (see more about Top Companies on page 16) reveals that women technologists are more likely than male technologists to believe that mixed-gender teams are more productive, innovative and creative than single-gender teams.

Organizations looking to advance women technologists are well-advised to educate all employees, but especially male technologists.

The good news is that the majority of both male and female employees strongly believe that gender diversity is valuable to an organization.

### PERCENTAGE OF TECHNICAL EMPLOYEES WHO STRONGLY BELIEVE THAT MIXED GENDER TEAMS ARE MORE PRODUCTIVE, INNOVATIVE AND CREATIVE:



## WHEN WOMEN LEAVE TECH, EVERYONE PAYS A PRICE

Data indicates that women enter the technology field—and then leave by mid-career, at a high cost to themselves, the business, and society. A lack of advancement opportunities is one reason for this exodus. Women technologists at every level of an organization helps foster business growth and create a hospitable environment for other women.



Women are three times less likely than technical men to be in senior roles.<sup>1</sup>



56% of women technologists leave companies by mid-level.<sup>2</sup>



Women leave tech companies at a rate two times faster than men.<sup>3</sup>



200% of a person's salary is lost to turnover.<sup>4</sup>

## WHY WOMEN LEAVE

A 2011 study by Fouad and Singh called "Stemming the Tide: Why Women Leave Engineering" found that the leading reason women leave is working conditions, which includes a lack of advancement.<sup>5</sup>

It is not a lack of ambition that holds women back from advancing. The Women Matter 2013 survey<sup>6</sup> revealed that women's ambitions are just as high as men's. 81% of men and 79% of women said that over the course of their career, they desire to reach a top-management position.

### Lack of opportunity puts women at risk

Data from the 2016 Top Companies Workplace Experience Survey conducted in alliance with Ultimate Software revealed that women technologists were significantly more at risk to leave an organization than their male colleagues (17.6% vs 12.9%).

The survey also revealed that a sense of optimism about career development opportunities differentiated "at risk" employees from "safe" employees. Employees at risk are likely to leave their jobs within a year, whereas "safe" employees are more likely to stay at their jobs. Women feel less optimistic about advancement than their male colleagues, which puts them at risk to leave.

## BIAS HAS NEGATIVE RESULTS FOR WOMEN

Nearly half of Fortune 1000 women named gender-based stereotypes and biases as a barrier to advancement.<sup>7</sup>

### The likeability bias

Success and likeability are positively correlated for men and negatively correlated for women. When a man is successful, he is liked by both men and women. When a woman is successful, people of both genders like her less.<sup>8</sup>

### The leadership bias

According to the Center for Talent Innovation, a third of senior leaders—both men and women—who work in science, engineering, and technology (SET) reported that women would never reach the top positions in their companies. Nearly half of American women in SET careers believed that senior management more readily saw men as "leadership material," and 44% believed that behaving like a man was beneficial to becoming a leader.<sup>9</sup>

### The performance review bias

Overall, 88% of performance reviews for women contained critical feedback, compared to only 59% of performance reviews for men, according to a study of 28 different companies. The study, which included large technology companies, found that critical feedback in performance reviews was not distributed evenly by gender.<sup>10</sup>

1. ABI, "Climbing the Technical Ladder: Obstacles and Solutions For Mid-Level Women In Technology," (Anita Borg Institute, 2009). 2. CTI, "The Athena Factor 2.0: Accelerating Female Talent in Science, Engineering & Technology," (Center for Talent Innovation, 2014). 3. CTI, "The Athena Factor 2.0: Accelerating Female Talent in Science, Engineering & Technology," (Center for Talent Innovation, 2014). 4. Heather Boushey and Sarah Jane Glynn, "There are Significant Business Costs to Replacing Employees," (Center for American Progress, 2012). 5. Nadya A. Fouad and Romila Singh, "Stemming the Tide: Why Women Leave Engineering," (University of Wisconsin - Milwaukee, 2011). 6. McKinsey, "Women Matter: 2013 Gender Diversity in Top Management. Moving Corporate Culture, Moving Corporate Boundaries" (McKinsey & Company, 2013). 7. Catalyst, "Women in Technology: Maximizing Talent, Minimizing Barriers," (Catalyst, 2008). 8. Sheryl Sandberg, "Lean In," (2013) 9. CTI, "The Athena Factor 2.0: Accelerating Female Talent in Science, Engineering & Technology," (Center for Talent Innovation, 2014). 10. Keiran Snyder, "The Abrasiveness Trap: High Achieving Men and Women are Described Differently in Reviews," (Fortune.com, August 26, 2014).

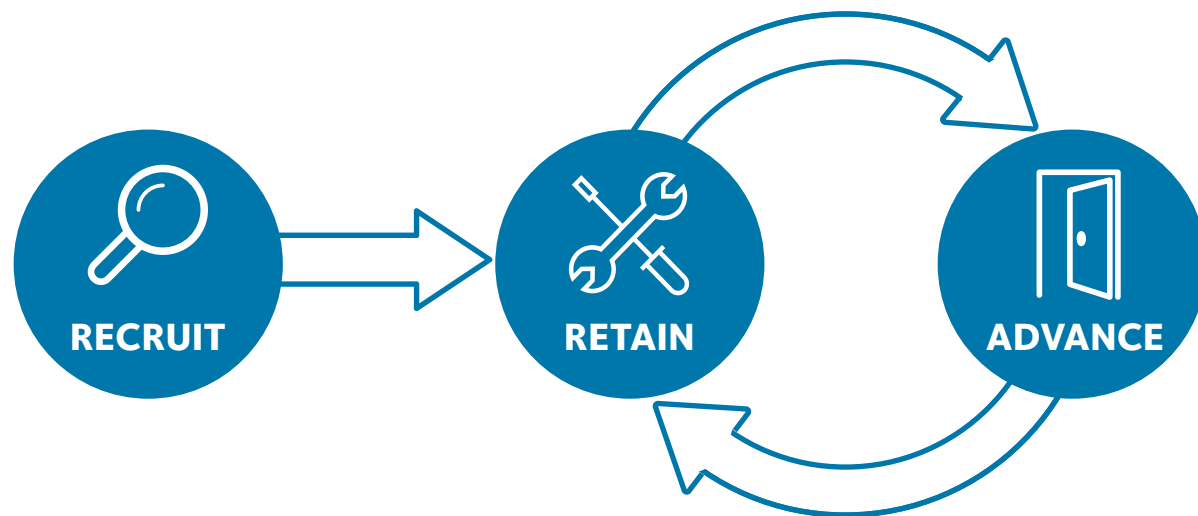
## RECRUITING AND RETENTION: NECESSARY, BUT INSUFFICIENT FOR ADVANCEMENT

Recruiting plays a key role in advancement, as women can't be promoted if they aren't in the pipeline to begin with. Advancement also plays an important role in recruitment: Technology organizations with women in visible leadership roles send a signal to recruits that women can and do ascend to high levels.

Once a woman technologist is hired, the process of retention begins, a process in which advancement is critical. Systematic barriers in organizations often limit

women's access to senior-level positions. With so few women occupying leadership roles, it's no surprise that women in middle-management may begin to question whether being in top management is within reach and worth the cost.

Paying close attention to how these three aspects are linked - rather than treating them as separate - can help companies diagnose where advancement efforts are falling short.



### WHAT WILL IT TAKE?

Advancing more women technologists will happen when organizations embrace a comprehensive model containing three key strategies:

- I Create an inclusive culture**
- II Hold leaders accountable**
- III Develop and promote women**

In the pages that follow, we provide information, guidance and specific recommendations for each of these strategies.



## KEY STRATEGY I:

# Create an Inclusive Culture

Organizational climate, or work culture, is the context in which companies set priorities, make decisions, and carry out day-to-day interactions. Work culture provides the foundation for decisions regarding employee advancement, and either encourages or hinders women's advancement.

Research shows that corporate culture is the most important driver for women's confidence in their professional success, twice as much as individual factors.<sup>1</sup> Many male-dominated technology organizations have work cultures that are inhospitable to women and create barriers to women's advancement. In a study that

included over 1,000 women who worked in engineering and then left the field, 17% gave organizational climate (didn't like culture) and 30% cited working conditions (no advancement) as the reason they left — that's 47% leaving because of culture.<sup>2</sup>

<sup>1</sup>. McKinsey, "Women Matter: 2013 Gender Diversity in Top Management. Moving Corporate Culture, Moving Corporate Boundaries" (McKinsey & Company, 2013). <sup>2</sup>. Nadya A. Fouad and Romila Singh, "Stemming the Tide: Why Women Leave Engineering," (University of Wisconsin – Milwaukee, 2011).



# RECOMMENDATION #1

## Focus on intersectionality

When it comes to advancing more women technologists into leadership positions, organizations are well-advised to utilize an approach based on the theory of intersectionality.

The theory of intersectionality recognizes that a person is categorized and discriminated against by a variety of factors including gender, race, age, education, religion, and many more. The overlap and interdependence of those categorizations is such that bias against a white woman is different than the bias against a black woman for example.

The term intersectionality was first coined in 1989 by American civil rights advocate and scholar of critical race theory, Kimberlé Williams Crenshaw. According to Crenshaw, "Intersectionality is an analytic sensibility, a way of thinking about identity and its relationship to power."<sup>1</sup>

Intersectionality matters because it helps create a framework that allows organizations to see the larger pattern in individual experiences. Without these larger patterns, organizations often fail to recognize the compounding effect unconscious bias has on women.

At the Anita Borg Institute, we use the intersectionality framework to guide our advocacy for better diversity and inclusion. It helps us step out of our comfort zones and have the difficult conversations needed to advance more women leaders. We recognize the importance of intersectionality as a means by which we can more fully and intentionally support the advancement of all women technologists by focusing on the multi-faceted, interconnected dimensions of their lives.

As Crenshaw notes, "We simply don't have the luxury of building social movements that are not intersectional, nor can we believe we are doing intersectional work just by saying words."

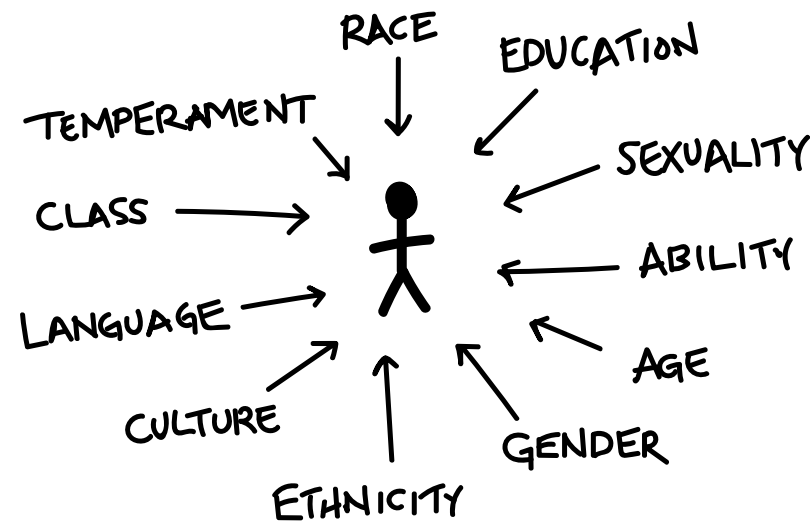
To move beyond words and into action, the Anita Borg Institute has undertaken a large-scale initiative focused on a key aspect of intersectionality – race. More information will be forthcoming as we launch our Women of Color Initiative.

### INTERSECTIONALITY:



“Intersectionality was a lived reality before it became a term.”

– KIMBERLÉ WILLIAMS CRENSHAW, DISTINGUISHED PROFESSOR OF LAW, UCLA AND COLUMBIA UNIVERSITY SCHOOL OF LAW



ADAPTED FROM AN IMAGE BY: Ashley J. Velazquez / <http://www.nymgamer.com/?p=12660>



“In nurturing all female leaders, we need to be sure to identify and honor the strengths of influential quiet role models.”

– SUSAN CAIN, CO-FOUNDER OF QUIET REVOLUTION AND QUIET LEADERSHIP INSTITUTE; AUTHOR OF BESTSELLER “QUIET: THE POWER OF INTROVERTS IN A WORLD THAT CAN’T STOP TALKING”

Temperament is one facet of intersectionality that technical companies are exploring as they strive to build more inclusive cultures. The myth of the charismatic leader is one of the reasons more women technologists don't advance into positions of leadership. Studies show that the best-performing teams have a healthy mix of temperaments. Though still at the early stages, pilot programs around temperament awareness are showing significant promise in helping advance women technologists into positions of leadership.

### RECOMMENDATION IN ACTION: GODADDY



GoDaddy engaged in the Quiet Ambassador Program created by the Quiet Revolution. Chief People Officer Auguste Goldman is a champion of the program. He says: "In the workplace, people tend to overestimate how outgoing leaders need to be. They equate loudness with strong leadership. This can also lead to the Myth of Open Space. When we redesigned our GoDaddy office, we built mechanics where extroverts win. Through working with Susan Cain and Anita Borg Institute, we realized that the managed chaos of our tech culture does not lend itself to everyone being authentic and bringing their best."



### HOW TO IMPROVE YOUR CULTURE FOR INTROVERTS:

- Don't let people who talk the most or the loudest overshadow good ideas.
- Use ways of gathering feedback that do not require group participation.
- When asking for feedback, give introverts time to process before they talk.
- For meetings that involve decision-making, send an agenda in advance. This gives introverts time to think about what they want to say.
- Be aware of your own natural tendencies and those of your team members. Talk about these as a team and create strategies to maximize everyone's contributions.

### DEFINITIONS:

#### INTROVERT

Introversions is more about how people respond to stimulation. Introverts feel most alive, switched-on, and capable when they are in quieter, more low-key environments. Introverts direct inward, to the world of thoughts and feelings, and need solitude to recharge their batteries.

#### EXTROVERT

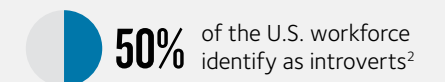
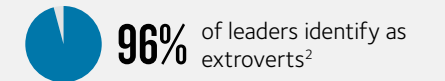
Extroverts crave large amounts of stimulation. Extroverts turn outwards to people and activities, and get their needed charge from socializing.



**CURIOUS WHERE YOU STAND ON THE TEMPERMENT SCALE? >**

TAKE THIS QUICK ASSESSMENT: [QuietRev.com/the-introvert-test/](https://QuietRev.com/the-introvert-test/)

### RESEARCH SHOWS:



**LEARN MORE ABOUT THE QUIET REVOLUTION AND THE QUIET TECH NETWORK >**

VISIT THE WEBSITE: [QuietRev.com](https://QuietRev.com)

1. Kimberlé Crenshaw, "Why Intersectionality Can't Wait," (The Washington Post, September 24, 2015). 2. Deniz S. Ones and Stephan Dilchert, "How Special are Executives?" Industrial and Organizational Psychology, 2009.

## RECOMMENDATION #2

# Foster gender partnerships

For many years, solutions for achieving gender parity in the workplace focused on “fixing the women.” More recently, it has become clear that men must be involved in order to bring about significant change. Gender partnership is the notion that men can partner with women to improve organizational culture and create opportunities for more women to advance.

While some studies have suggested that mandatory unconscious bias training can have a negative consequence,<sup>1</sup> the Top Companies data found the presence of gender diversity programs to be positively correlated with increased representation of women technologists.

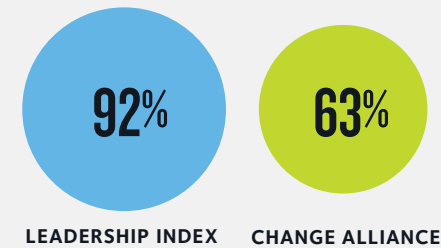
The primary goal of gender partnership programs is to engage men as allies and gender partners for the benefit of women, men and the organization. Framing it as merely beneficial for women isn't enough. Sociologist Michael Kimmel believes

that gender partnership is a win-win for companies and everyone else – men and women alike: “We have the data to prove to men that equality is not a zero-sum game.”

Kimmel also notes that for gender partnership initiatives to gain momentum within an organization, they must engage men at various levels. “It's important for men at the top to buy in. They're already successful, so they're not threatened. The 'frozen middle' is the block from both directions. Purely top-down initiatives will not be successful.”

### GENDER DIVERSITY TRAINING:

Formal training that addresses the value of gender diversity and/or barriers to achieving it significantly differentiated companies on the Top Companies 2016 Leadership Index from companies on the Change Alliance.



## RECOMMENDATION IN ACTION: CAPITAL ONE



At Capital One, identifying and encouraging gender partnerships is a key element of the company's Women in Tech initiative, which created a Male Allies sub-group in 2015.

“Conversations about gender equality aren't easy, but finding a trusted partner in your field is key,” says Jennifer Manry, Vice President Enterprise and End User and co-developer of the Male Allies Program. “Once you've created the space to allow for mistakes on the journey to understanding of the real issues that women face in tech, you're able to be a part of the solution.” Her co-founder Mike Wisler, Managing Vice President, Technology and member of the Anita Borg Institute's Gender Partnership

Executive Council agrees: “We're only at the beginning, and there's no instant solution to gender parity in tech, but we're committed to continuing this journey.”

To help women and men technologists find allies, Wisler and Manry personally hosted fireside chats at Capital One locations across the country for thousands of associates. The company offered screenings of CODE: Debugging the Gender Gap, a documentary they sponsored about gender bias in tech, followed by panel discussions that integrated men as allies into the conversation. By tackling challenging issues together, they led by example and modeled the behavior that now resonates more strongly throughout the company.



“ Privilege is invisible to those who have it. If you calculate how much gender inequality is costing you, it's extremely expensive.”

– DR. MICHAEL KIMMEL, DISTINGUISHED PROFESSOR OF SOCIOLOGY AND GENDER STUDIES, STONY BROOK UNIVERSITY (SUNY)

## BUILDING A GENDER PARTNERSHIP PROGRAM

If gender equality is good for organizations, then it only makes sense that all employees should be part of the solution. And since nearly 80% of the technical workforce are men, that involves taking a strategic and thoughtful approach to gender partnership.

### A FORMAL PROGRAM SHOULD:

- Improve knowledge about the business case for gender diversity
- Grow interest in participating in gender diversity initiatives
- Expand the use of tools and strategies to be a good gender partner

Formal gender partnership programs bring men and women together to understand the business case for gender diversity, examine the available diversity data within their own organization, and explore the barriers that stand in the way of gender equality. Ideally, participants will confront their own biases and work together to determine gender diversity initiatives that can be effective in their culture.

It's important that this program not be framed as “training for men.”

Not only are women's experiences critical to the content, but women also have unconscious bias against women. It's key that women leaders as well as men leaders are committed to making gender partnership work.

In-person interactions between men and women are a vital part of the program design. Sharing personal stories helps to improve everyone's understanding. Says Dr. Michael Kimmel: “Dialogue is a springboard facilitating change. Some men see supporting gender equality as something akin to the cavalry like, ‘Thanks very much for bringing this to our attention ladies, we'll take it from here.’ We need to confront men's sense of entitlement to reduce their resistance to gender equality.”

A comprehensive program will include traditional unconscious bias training, and expand far beyond it to explore areas such as: barriers for men as advocates, the growth mindset, creative conflict, micro-aggressions and the bystander effect, the power of diversity including temperament (introverts and extroverts), and how to change culture.

1. Duguid, Michelle M. Duguid and Melissa C. Thomas-Hunt “Condoning stereotyping? How awareness of stereotyping prevalence impacts expression of stereotypes” (Journal of Applied Psychology, Vol 100(2), March 2015). 2. ABI, “Climbing the Technical Ladder: Obstacles and Solutions For Mid-Level Women In Technology,” (Anita Borg Institute, 2009). and Catalyst, “Anatomy of Change: How Inclusive Cultures Evolve.” (Catalyst, 2013).

## MEN AND WOMEN EXPERIENCE THE WORKPLACE DIFFERENTLY

Mid-level men and mid-level women often experience workplace culture differently. Mid-level women find high-tech culture to be competitive and unfriendly. They believe that the culture demands significant personal sacrifice and that, to be heard, they must make a concerted effort to be assertive.

In Anita Borg Institute's groundbreaking 2008 study, *Climbing the Technical Ladder*, many of the women technologists interviewed entered their fields believing that they would be evaluated based on merit and accomplishments alone. Over time, many of these women lost confidence that they worked in a meritocracy. Evidence of unconscious bias changed their perspectives, while the men in the study continued to believe that their work environment was meritocratic.

Companies looking to accelerate the advancement of women in technology will create a work culture where women can thrive. Research has shown that gender diversity flourishes in inclusive work cultures, where different experiences, perspectives, and backgrounds are valued. In an inclusive culture, women have the freedom to express themselves without fear of reprisal or negative judgment.<sup>2</sup>

## A GLOBAL INFORMATION SERVICES COMPANY EXPLORES GENDER PARTNERSHIP

In the spring of 2016, Thomson Reuters participated in a Gender Partnership pilot with Anita Borg Institute as part of a larger gender partnership initiative underway at the Institute. The pilot at Thomson Reuters involved 25 mid-level managers (men and women) with four half-day meetings over six weeks.

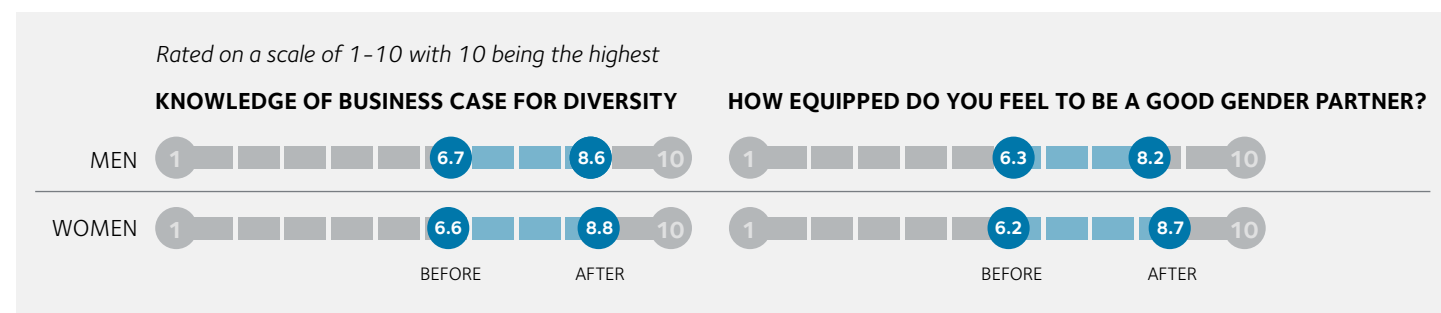
The goal was to provide knowledge, tools, and strategies to a selective group of mid-career male and female technologists with influence within the organization so that they would become activists and ambassadors for gender partnership. The discussions cultivated candid, honest feedback on tools and concepts to shift the culture.

Looking at their own Top Companies 2016 data, Thomson Reuters Executive Vice President and Chief Information Officer Rick King commented: “We have 27% representation of women at Thomson Reuters which is better than the 21% industry average, but that doesn’t nearly represent our population in general. There is still a wide gap between where we are and where we want to be. We knew we needed to move our culture to embrace inclusiveness and embed it into the workforce.”

### RECOMMENDATION IN ACTION: THOMSON REUTERS



Examples of the initial success of the program are demonstrated in the data below. In all cases, both men and women felt more knowledgeable, and better equipped to take action as gender partners as a result of their participation.



In each team involved in the Thomson Reuters pilot, facilitators reported that at least one man said, “I came into this course thinking I knew it all, because of my (choose one or more: engineer wife, female boss, female employees, science-oriented daughter). But I was wrong. I learned so much.”

#### THINGS YOU CAN DO TO CREATE AN INCLUSIVE CULTURE



##### EDUCATE YOURSELF

- Recognize your bias and work to mitigate it by taking the Harvard Implicit Association test. <https://implicit.harvard.edu/implicit/takeatest.html>
- Understand how gender diversity benefits everyone. Watch Michael Kimmel’s TED talk <https://youtu.be/7n9IOH0NvyY>

##### EXTEND YOUR INFLUENCE HOLDING EVERYONE ACCOUNTABLE

- Create a collaborative environment encouraging diverse ideas

##### GIVE CREDIT WHERE CREDIT IS DUE

- Acknowledge and compliment work in front of others

##### NOTICE AND CORRECT BIAS

- “Wait, let her/him finish. I want to hear her/his explanation.”

##### MAKE DISCUSSION OF GENDER AND/OR DIVERSITY LESS RISKY

- Be aware, listen, everyone has their own story

## RECOMMENDATION #3

# Publicly recognize women

*As the popular saying goes: “You can’t be what you can’t see.” Women who aspire to advance cannot see a clear path forward for themselves if there are not well-respected, successful women leaders one or two levels above them. These women function as role models, whether consciously or not, and they are key to boosting advancement.*

Making women role models more visible at every level in an organization sends a powerful message to all employees that gender diversity is valued, and that women are expected to become leaders. Finding women in leadership positions shouldn’t be rare or surprising.

The relevance of role models is extremely important. Candid interviews revealed that women want role models who are on a similar career track.<sup>1</sup> When individual contributors are never given visibility, it signals that the only path for advancement is through management.<sup>1</sup>

Role models must reflect the full range of diversity that the company is seeking to inspire and advance. Organizations should look well beyond gender, and include factors like race, marital status, parenting status, and other variables that are important to women. Seeing women role models who are “like them” across several dimensions sends a powerful message to women regarding the inclusiveness of the work culture, and the likelihood that they will advance.



#### WHAT COMPANIES CAN DO TO RECOGNIZE WOMEN:

- Spotlight women technologists on both the manager and individual contributor tracks. Provide visibility online and offline, via blog profiles, website features, brown bag lunches, speaking engagements, and high-profile appointments on important committees.
- Extend leadership pathways to many women. When few are given leadership roles, it suggests “tokenism” and greatly undermines their status and the value of their contributions.

### RECOMMENDATION IN ACTION: INTUIT



Intuit developed a Technical Women’s Speaker Series, with a goal to make the company’s women technologists, and the projects they’re working on, more visible for all employees.

Each year, Tech Women @ Intuit helps women technologists prepare to speak at the Grace Hopper Conference. In 2016, fifteen Intuit women worked with coaches to hone their presentations and represent Intuit at this industry showcase.

<sup>1</sup>. ABI’s “Senior Technical Women: A Profile of Success,” (The Anita Borg Institute, 2010).

### RECOMMENDATION IN ACTION: THOUGHTWORKS



ThoughtWorks, a global software company, launched a campaign on their website featuring the stories of eight women technologists at all levels of the company. These features show how women around the world are succeeding in their tech careers at ThoughtWorks—from the CTO to a business analyst and project manager.



#### READ THE STORIES >

<https://www.thoughtworks.com/we-are-technologists>





## KEY STRATEGY II: Hold Leaders Accountable

*Leaders wield tremendous influence. Nowhere is this more visible than in findings around gender diversity, where we see that significant progress is only made when it is a top-three agenda item.<sup>1</sup>*

Findings from the McKinsey Global Survey Results<sup>1</sup> indicate that commitment from top leaders makes all the difference. This was aptly demonstrated in 2014, when several prominent technology companies divulged their metrics on the representation of women in their

technical workforces. They revealed these results in rapid succession, publicly acknowledging that it is a universal problem that needs to be fixed. Today, a vocal and visible executive commitment is more important than ever.

<sup>1</sup>. McKinsey, "Global Survey Results: Moving Women to the Top," (McKinsey & Company, 2010).

## RECOMMENDATION #4

# Make gender diversity a top organizational priority

*Executive leaders play an important role in fixing the dearth of women in leadership, because they set company goals and priorities, communicate those priorities throughout the organization, allocate company resources to meet priorities, and hold managers accountable for achieving them.*

CEOs who do make visible and enduring commitments are crucial to the success of programs focused on the advancement of women. When CEOs manage by example, it affects the entire organization. Not surprisingly, data show that when gender diversity initiatives are visibly monitored by the CEO, actions are markedly more present.

According to The Conference Board of Canada, chief executive commitment to fostering gender diversity is the primary factor that makes an organization "best in class" for women. Without chief executive commitment and intentional action, progress is slow.<sup>1</sup>



### WHAT LEADERS MUST DO:

- Set goals for gender diversity
- Clearly communicate the goals
- Dedicate resources to the goals
- Hold themselves, senior leaders, and managers accountable

## THE IMPORTANCE OF A COHESIVE EFFORT

Overwhelmingly, technical women attribute their successes to managers who "get it."<sup>2</sup> These highly-regarded managers understand the business case for gender diversity and work to create an inclusive work environment.

But managers can only be held accountable for gender diversity goals when they are clearly stated and genuinely supported by the organization. As more top-level leaders prioritize diversity within their organizations, the more we'll see managers who "get it" rise as leaders and champions for greater gender diversity.

Another key factor is visibility into diversity data. While most companies collect and track diversity data, few communicate it in sufficient detail to executives and managers. As a result, senior line managers often don't have a clear picture of what their advancement pipeline looks like, much less how to improve it.

## RECOMMENDATION IN ACTION: INTEL



In January, 2015 Intel CEO Brian Krzanich committed \$300 Million to support a diversity in technology initiative. The stated intention was "setting a bold hiring and retention goal to achieve full representation of women and underrepresented minorities in Intel's U.S. workforce by 2020."

In January 2016, Krzanich reported that 43% of Intel's new hires were women and underrepresented minorities. He said, "I did this for one simple reason. If we want tech to define the future, we must be representative of that future."

<sup>1</sup>. Barbara Orser, "The Key to Advancing Women's Advancement," (Chief Executive Commitments, 2000). <sup>2</sup>. ABI, "Climbing the Technical Ladder: Obstacles and Solutions For Mid-Level Women In Technology," (Anita Borg Institute, 2009).



## RECOMMENDATION #5

# Participate in Top Companies

Since it launched in 2011, Anita Borg Institute's Top Companies for Women Technologists has become the industry benchmark for measuring the representation of women technologists in the U.S. In 2016, it captured a workforce of over 1.3 million, including more than 540,000 technical workers.

### TOP COMPANIES 2016 PARTICIPANT DATA

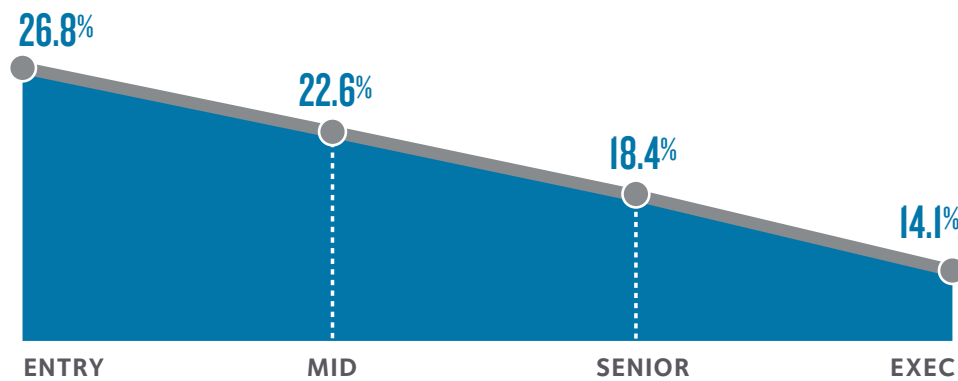
- 60 organizations participated in the 2016 study, up 71% from 2015
- Participants represented various industries including consulting, finance, insurance, media, research, retail, hardware, software, and information service
- On average, 53% of the workforce at participating companies was in a technical role

All participating organizations adopt standardized definitions of a technologist so that they can be assured that we are comparing apples to apples in the Top Companies benchmarking data. Top Companies define the technical workforce as consisting of all technical occupations in computing and information technology. The technical workforce is defined by position, not department. This includes both technical individual contributors as well as technical

managers. The definition of technical employees covers four categories: engineering, research and development, and technical design; IT engineering and support; technical services, technical sales and technical marketing; and technical management and leadership.

**WOMEN HOLD 21.7% OF JOBS IN TECHNICAL ROLES**

### REPRESENTATION DECLINES AT SUCCESSIVE LEVELS



Participating companies had values ranging from a low of 7.6% to a high 37.6%. This indicated an increase of nearly 1% over five years (from 20.8% to 21.7%). While this is good news, the steady rate of decline of women technologists from entry, to mid, to senior to executive levels remains discouraging.

### DEFINITIONS:

#### TOP COMPANIES

Anita Borg Institute's Top Companies for Women Technologists uses a rigorous statistical methodology to evaluate companies on their progress in advancing, retaining, and hiring women in technical roles, and on their improvement year over year.

#### LEADERSHIP INDEX

Companies with above average representation of women technologists

#### CHANGE ALLIANCE

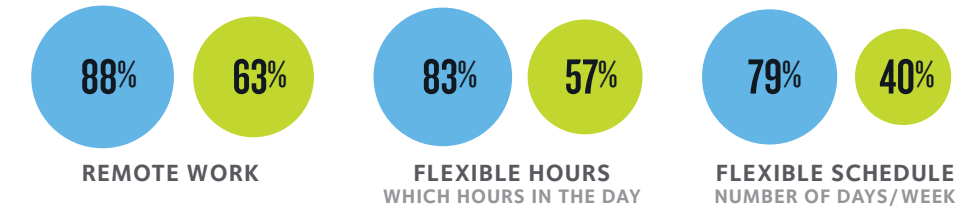
Companies who participated in Top Companies, but did not rise to the level of the Leadership Index

In addition to collecting data about the representation of women technologists from entry to executive levels, Top Companies strives to understand what companies are doing to help recruit, retain and advance more technical women. In order to empirically answer this question, we looked at companies with above average representation of women technologists (companies on the Leadership Index) and compared them to companies who participated in Top Companies, but did not rise to the level of the Leadership Index (companies on the Change Alliance).

### KEY PROGRAM FINDINGS IN 2016

Three policy and program areas emerged as statistically significant differentiators ( $p < .10$ ) between companies on the Leadership Index and those on the Change Alliance; flex time, formal leadership development programs, and formal gender diversity training.

#### FLEX TIME POLICIES



#### LEADERSHIP DEVELOPMENT PROGRAMS



#### GENDER DIVERSITY TRAINING



We commend all Top Companies participating organizations, whatever their results. By contributing to the industry benchmark both Leadership Index and Change Alliance companies demonstrate a commitment to understanding where they are today and how they can improve.

We encourage organizations across industries to participate in Top Companies to help grow this benchmark and obtain valuable insight to help inform gender diversity initiatives.



“Organizations must focus on recruiting, retaining and advancing women technologists to innovate and stay competitive. Beyond repeating anecdotes, the key to closing the gender gap is hard data. Top Companies is the only program of its kind that shows how the industry as a whole is progressing, which organizations are committed to diversity and what programs work to create measurable change.”

– TELLE WHITNEY, PRESIDENT AND CEO OF ANITAB.ORG

**LEARN MORE ABOUT KEY FINDINGS AND INSIGHTS FROM TOP COMPANIES 2016 >**

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<http://anitaborg.org/insights-tools/top-companies-participants/key-findings-insights-2016/>



### KEY STRATEGY III:

# Develop and Promote Women

*Employees who are identified as “high-potential” presumably have greater visibility in an organization than employees who are not identified as “high-potential.” The favorable identification increases their chances of being given the attention and the opportunities that leads to advancement.*

Research suggests that women are promoted based on performance, while men are promoted based on potential.<sup>1</sup> If this same bias is inherent in the talent identification process, then men may be identified as “high-potential” when they merely demonstrate potential, whereas women may not be identified as “high-potential” until they demonstrate performance.

We know that 56 percent of technical women leave their jobs by mid-career.<sup>2</sup> Yet most companies do not focus on cultivating high-potential employees until they reach or move beyond mid-level. This is a costly mistake. Companies would be well-served to identify and cultivate high-potential women technologists earlier in their careers on the track of their choice: management or individual contributor (IC), such as distinguished engineers.

<sup>1</sup> McKinsey, “Unlocking the Full Potential of Women at Work,” (McKinsey & Company, 2012). <sup>2</sup> Sylvia Ann Hewlett, Carolyn Buck Luce, and Lisa J Servon, “The Athena Factor: Reversing the Brian Drain in Science, Engineering and Technology,” (Harvard Business Review 10094, 2008).

## RECOMMENDATION #6

# Provide leadership development to high-potential women

*It’s not enough to simply have good intentions and hope that women advance into leadership roles. Formal leadership programs are a two-way commitment between an organization and its women technologists. They indicate that the company is moving beyond lip service into action, while women who participate indicate their readiness to grow and develop new skills.*

When companies provide formal leadership development programs to high-potential woman on company time, visibly supported by an executive sponsor, it sends a signal to the women that investing in their growth and advancement is a top priority.

Formal leadership programs, when well-designed and executed, can positively impact both the retention and advancement of women technologists.

### SUCH PROGRAMS SHOULD COVER THREE KEY AREAS INSTRUMENTAL FOR ADVANCEMENT:

- 1 Goal clarity
- 2 Confidence
- 3 A strong network

In their book “The Confidence Code: The Science and Art of Self-Assurance – What Women Should Know,” Katty Kay and Claire Shipman assert that success really does depend as much on confidence and it does on competence. Development programs that teach women how to engage in confident behaviors can increase their interest in, and readiness for, moving into bigger and more influential roles.

Since women constitute a minority in most technical organizations, they may have limited exposure to other women within the company who are pursuing technical careers. Creating a strong network of women who are participating in development programs often produces better results.



### QUESTIONS TO GUIDE THE IDENTIFICATION OF HIGH-POTENTIAL EMPLOYEES:

- What criteria are used for identifying high-potential women? Are the criteria measurable or is identification more subjective?
- How is unconscious bias mitigated in the identification process?
- Who participates in the talent identification process? Is there gender diversity among the decision-makers?
- At what career stage are employees identified as high potential?
- How often is the list of high-potential employees revisited?
- Is the list fluid or fairly static? Do people flow on and off the list?
- Are employees told that they are on a high-potential list? Why or why not?
- What development opportunities become available to employees who are identified as high-potential compared to those not identified?
- What is the gender breakdown of employees on the high-potential list?



## RECOMMENDATION IN ACTION: THOMSON REUTERS

Thomson Reuters committed to a program offered by Anita Borg Institute called Leadership1®. The program is designed to help cultivate high-potential mid-career women technologists, with the ultimate goal of advancing

them into positions of leadership. Data gathered over six years of the Leadership1 program at Thomson Reuters demonstrates its impact on individual participants.

Percentage of participants who say they have this attribute	GOAL CLARITY	CONFIDENCE	STRONG NETWORK
BEFORE PROGRAM	75.2%	55.8%	40.8%
<b>AFTER PROGRAM</b>	<b>94.1%</b>	<b>95.0%</b>	<b>89.0%</b>
<b>% CHANGE</b>	<b>+18.9%</b>	<b>+39.2%</b>	<b>+48.2%</b>

Data is based on N=303 participants over 6 years

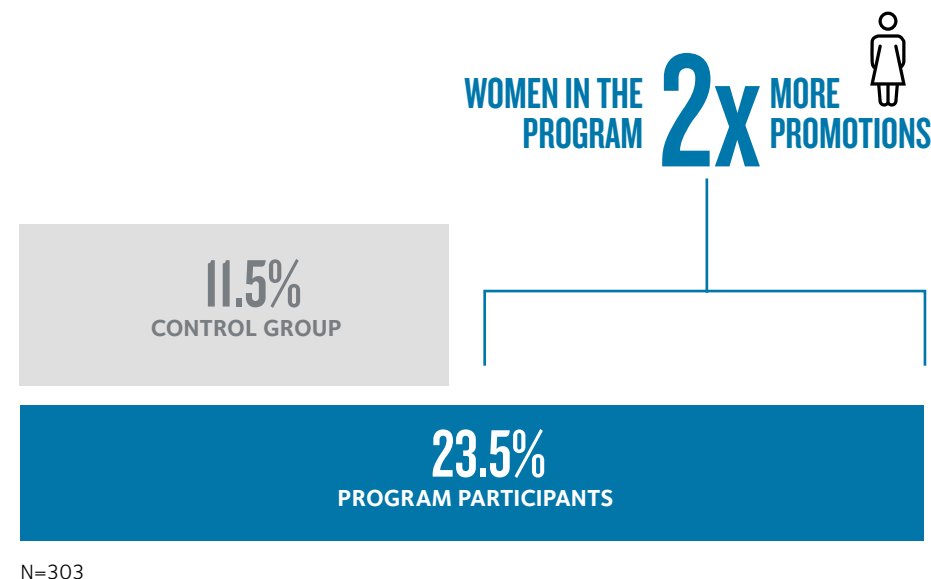


“The dedication our organization has placed on Leadership1, along with the commitment of the program’s participants, is very gratifying. The improvements in retention and promotion are a clear indication that we are successfully addressing the needs of our female technologists.”

— RICK KING, EVP AND CHIEF INFORMATION OFFICER, THOMSON REUTERS

### IMPACT TO THE ORGANIZATION:

Six years of longitudinal data from Thomson Reuters shows that women who participated in the Leadership1 program were promoted at twice the rate of a control group of women technologists who had not participated in the program (23.5% promoted vs 12% promoted). That means significantly more high potential women technologists are advancing at Thomson Reuters. The impact is greater gender diversity at higher levels within the organizations and more female role models to be beacons for the women who are earlier in their careers.



## RECOMMENDATION #7

# Create opportunities for sponsorship and networking

Women technologists in male-dominated organizations often feel isolated in the workplace. Sponsors and formal networks play an important role in the retention and advancement of women because they foster a sense of community, reduce isolation, and provide vital social capital.

Women technologists often use networks to discuss the challenges of working in a male-dominated profession. Through interaction with other women, they serve as both mentor and mentee intermittently learning strategies for success, sharing career aspirations, and encouraging each other to pursue new opportunities. Through these

connections, women gain confidence in their abilities and gain enthusiasm about their advancement. Technology should be leveraged to enable virtual face-to-face interactions in networking groups. Virtual networks can also promote interaction across geographic boundaries, bringing women together from different locations who share similar job experiences.

### SPONSORS

In the past, many companies believed that mentors were the answer to advancing women. However, research suggests that mentorship doesn't tie directly to advancement.<sup>1</sup>

Mentors are often not in a position to influence the direction of a woman's career, but sponsors can. They are senior-level advocates who use their power and influence to advocate for challenging projects, build high-level visibility for the sponsee with senior leaders, and ensure that the sponsee is given opportunities for promotion.

For these reasons, Anita Borg Institute recommends incorporating high-level sponsors as a way to help women advance faster.

### HOT JOBS

According to a 2012 study by Catalyst, projects led by men deliver more face time with top-level executives, with 35% of men reporting high-level visibility compared to 26% of women.

Catalyst asserts that these “hot jobs” propel careers forward at a much faster rate than others. This finding helps explain why women are not advancing at the same rate as their comparably qualified male colleagues, even when both are given the opportunity to lead projects. Since certain assignments carry greater value within an organization, managers should strive to make gender equity a priority in the assignment of “hot jobs.”<sup>2</sup>



### HOW TO CREATE MORE OPPORTUNITIES:

- Help women clarify their goals, including whether they want to be on the manager or individual contributor career track
- Regularly identify which mission-critical projects have the highest level of executive visibility, budget and people resources
- Make this list available to managers who have the authority to assign high-potential women to these “hot jobs”
- Hold managers accountable for pairing high-potential women with hot jobs

1. Sylvia Ann Hewlett, “Forget a Mentor, Find a Sponsor: The New Way to Fast-Track Your Career” (2013).  
 2. Christine Silva, Nancy M. Carter, and Anna Beninger Catalyst, “Good Intentions, Imperfect Execution? Women Get Fewer ‘Hot Job’ Needed to Advance,” (Catalyst, 2012)

## RECOMMENDATION #8

# Build an incremental advancement system

*Social psychology principles can help us find new and innovative ways for advancing women. This recommendation challenges organizations to significantly reimagine how they think about advancement.*

In over a decade of working with the technical workforce, Anita Borg Institute has observed a connection between promotion models and the advancement of women into positions of leadership. This recommendation arose directly from this work.

In the common Promotion-and-Wait Model, employees wait long periods of time between promotions. In between, they often receive little information about how they are progressing along an advancement continuum.

In the Incremental Advancement Model, advancement occurs in smaller, more frequent, more defined, and more transparent steps between promotions. This new model of advancement lends itself to more intentional, transparent advancement practices that benefit both the individual and the organization.

It is our belief that a system built on incremental advancement has significant advantages over the current Promotion-and-Wait Model.

And while this recommendation is more theoretical than data-driven, it can help to remove the subjective bias from the promotion process for organizations that believe themselves to be a meritocracy. This model is also very appealing to millennials who tend to want more frequent feedback and more advancement opportunities.

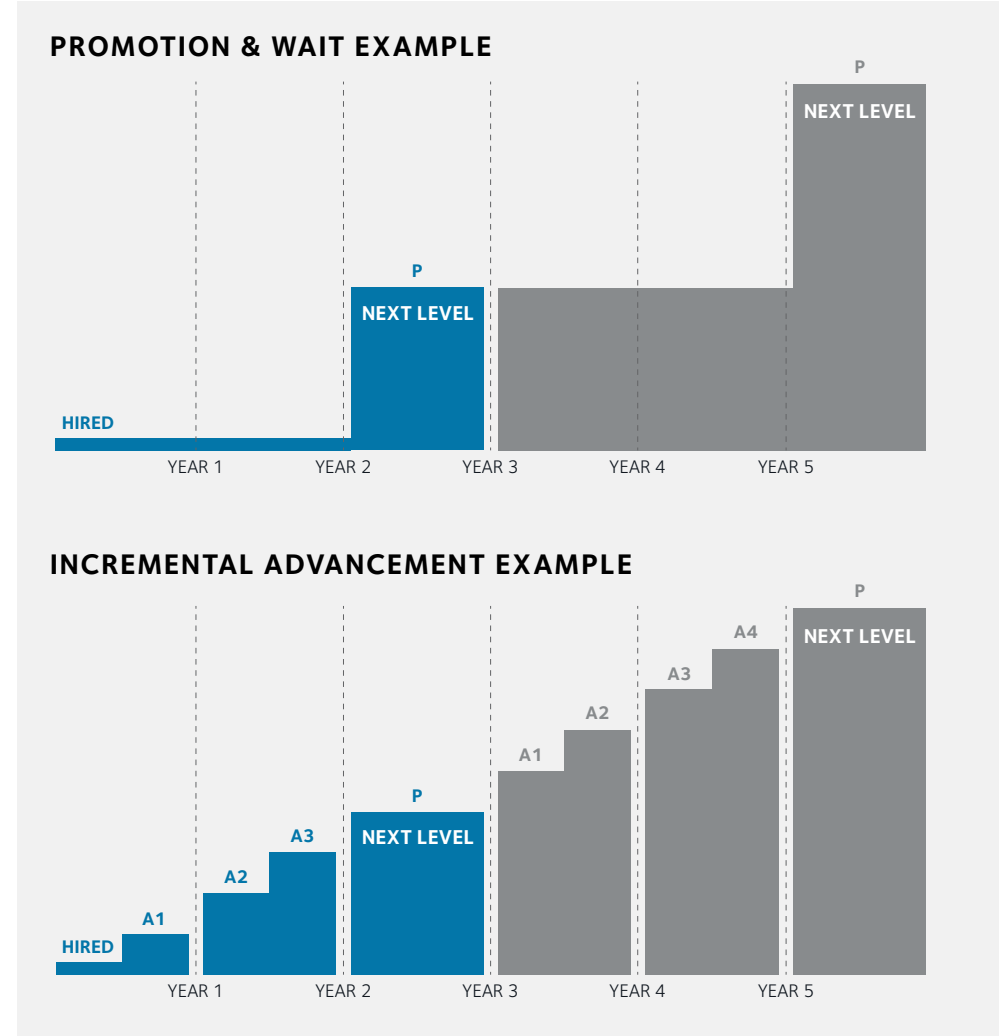
### ADVANTAGES OF THE INCREMENTAL ADVANCEMENT MODEL:

- **Provides clarity for employees who want to advance.** It reduces ambiguity about eligibility for promotion by providing concrete milestones of advancement leading to a promotion.
- **Allows managers to make better data-driven decisions.** Data provides insight into who is ready for a promotion based on objective, quantifiable measures rather than on subjective criteria. With more accurate and transparent measuring of the incremental steps along the advancement continuum, companies can better compare men and women's advancement, which can reduce unconscious bias in the promotional process that points to men being promoted based on potential and women being promoted based on performance.
- **Increases employee engagement and retention.** Recognition is a powerful retention strategy. The more opportunities an organization has to recognize high-potential employees in meaningful ways, the greater the chances are that these employees will stay engaged. The time between promotions is often long on technical tracks. Ambitious employees grow weary, and companies run the risk of losing them. Incremental advancement is one meaningful way to keep employees engaged between promotions.
- **Enables rapid measurement of advancement tactics.** When promotions are the sole measure of a program's success, it may take years before their effectiveness can be determined. However, when incremental advancement is measured, companies can track the effectiveness of development programs aimed at advancing technical women. It is far easier to track results by increases in steps of advancement than by promotions alone.

The two examples to the right describe a hypothetical situation in which a woman technologist received two promotions in five years and reached the same level. However, in Incremental Advancement example, the steps she had to take to be promoted were transparent, based on performance, not subjective bias, and she had 7 advancement "wins" along the way—making for a more positive, confidence-building experience.

**NOTE:** The examples apply to a particular career stage. This same advancement cycle can be applied across all career stages.

A= Advancement steps | P = Promotions  
Promotions are the most desirable aspect of advancement, but promotions happen relatively infrequently in a person's career compared to how often they advance in their skills and experience.



### HOW TO DEVELOP INCREMENTAL ADVANCEMENT PRACTICES:

- 1. Create an advancement task force.** Determine who in your company should be involved in mapping the incremental advancement milestones for each job position. Include a diverse group of professionals who fully understand the job requirements in order to achieve the most relevant and unbiased mapping. You may want to start with one job category as a pilot project.
- 2. Define a clear path for advancement.** Ensure advancement steps between promotions are based on measurable skills, abilities, proficiencies, or certifications that employees can obtain through training or demonstrate through on the job performance.
- 3. Establish company policies regarding incremental advancement.** Include guidelines about what information will be used for determining current levels for each employee, how employees will be notified about their levels, and whether incremental advancement will be associated with annual performance reviews only, or whether employee advancement can occur on an "as achieved" basis.



# Conclusion

*In preparing this paper, we framed Key Strategies I and II to address the organizational-level changes needed to accelerate the advancement of women technologists into positions of leadership. But these changes are not enough. In Key Strategy III, we addressed the fact that organizations must also provide development opportunities to the women themselves. Together, these strategies help to provide a framework organizations can use to advance more women technologists.*

## POINTS OF DISCUSSION:

- Are all eight recommendations equally important?
- Is there a natural order to implementing the recommendations?
- Is there one recommendation that should be done first?
- Will some of these recommendations, if done together, produce greater impact than others?

Data can answer some of these questions for us, but other answers are still unknown. Evidence and experience suggest that all eight recommendations are important for the advancement of women technologists; however, there is currently no data to suggest the optimal ordering of the eight recommendations.

We do believe that the recommendations build upon each other with cumulative effects in an organization, so that engaging in multiple recommendation across the different key strategies will have compounding impact.

When it comes to the question of “Is there one recommendation that we should do first?” the answer is yes. If you are not already measuring your representation of women technologists via Top Companies (Rec #5) or another preferred means, that should move to the top of your action plan. You need to know your numbers in order to grow your numbers. With that said, each organizations should take into account their own business needs to determine the proper ordering of the recommendations.

We know from the dearth of women technologists at every level that we need a multi-faceted approach to advancing women technologists. Approaches that solely address culture, solely address leaders or solely address developing the women will not be as effective as approaches that address all three simultaneously. For this reason, we suggest that organizations engage in at

least one recommendation from each of the three key strategies before engaging in multiple recommendations within one key strategy. Commit to completing recommendations that are already showing progress within your organization or select new recommendations to replace the ones that are not getting the traction you desire.

## FINAL THOUGHTS

Advancement for women in technical roles is hampered by both structural and cultural biases. Without the opportunity to advance into positions of leadership, women leave the industry. This results in weaker technological solutions and leadership decisions, as they lack the range and insight that an entire gender brings to bear.

We must expose and replace these structural and cultural biases with programs and behaviors that welcome women, promote them fairly, and allow us to build a technological future that represents us all.

TEAR THIS WORKSHEET OUT AND USE IT TO ASSESS YOUR ORGANIZATION

## SELF-ASSESSMENT ON ADVANCING WOMEN TECHNOLOGISTS

See instructions on reverse.

Name \_\_\_\_\_ Date \_\_\_\_\_

(Place marks below corresponding with current status.)

### ADVANCEMENT RECOMMENDATIONS

Not Started Yet    Planning Under Way    Programs in Progress    Seeing the Desired Outcomes

#### KEY STRATEGY I: CREATE AN INCLUSIVE CULTURE

#1: Focus on intersectionality

#2: Foster gender partnerships

#3: Publicly recognize women

#### KEY STRATEGY II: HOLD LEADERS ACCOUNTABLE

#4: Make gender diversity a top organizational priority

#5: Participate in Top Companies

#### KEY STRATEGY III: DEVELOP AND PROMOTE WOMEN

#6: Provide formal leadership development programs

#7: Create opportunities for sponsorship & networking

#8: Build an incremental advancement system

*Rigorous measurement is an essential component in accelerating the advancement of women technologists. Companies should establish a baseline measure prior to implementing any of the 8 recommendations, and follow up with measures after implementing the recommendation. This is the best way to determine whether the recommendation made an impact.*

## SELF-ASSESSMENT ON ADVANCING WOMEN TECHNOLOGISTS

### USING THE ADVANCEMENT CHECKLIST TO CREATE YOUR ACTION PLAN:

- Distribute the Advancement Checklist to various leaders within your organization who are part of advancement initiatives or who have oversight for advancement initiatives.
- Look for areas of agreement and disagreement among the leaders with regard to the status of each recommendation.
- Review your status on each of the eight recommendations until agreement has been met.
- Commit to knowing your numbers either through participation in Top Companies (Recommendation #5) or some other benchmarking program.
- Look to see if you have at least one program already underway in each of the three key strategies. If not, make this a priority.
- Discuss prioritization. Make decisions about what current initiatives to continue, which new initiatives to begin and which initiatives to stop.
- Clarify your goals and desired outcomes for each recommendation that you are engaged in. Your goal for any program you are engaged in should be the final column on the checklist "Seeing the outcomes we desire."
- Hold yourselves accountable to tracking progress and revisiting this checklist 3, 6 and 12 months from now.



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## **About AnitaB.org**

*AnitaB.org is a social enterprise founded on the belief that women are essential to building technology the world needs. We envision a future where the people who imagine and build technology mirror the people and societies they build it for.*