



TOOLS FOR CHANGE

Boosting the Retention of **Women** in the
STEM Pipeline

What Works for Women at Work

HOW TO IDENTIFY THE FOUR PATTERNS OF GENDER BIAS AND INDIVIDUAL STRATEGIES FOR OVERCOMING GENDER BIAS

ONLINE
TRAINING

www.toolsforchangeinstem.org

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"I JUST SAW FIVE MEN DO IT THAT WAY."¹

PROVE-IT AGAIN!

HOW MANY TIMES DO YOU HAVE TO PROVE YOUR COMPETENCE BEFORE IT'S NOT JUST A FLUKE?

When we look at CEOs, at law firm partners, or at engineers, we quite literally see men – because that's who's in those positions. And because we get used to seeing men there, most of us automatically think of a man when we think of a successful professional. As a result, it takes more to convince people of women's competence, while men receive the benefit of the doubt.

EXAMPLES OF PROVE-IT-AGAIN! BIAS:

- In a hiring-committee meeting, male candidates tend to be described as having high potential, and female candidates tend to be dismissed because they are not prove themselves yet..
- Agnes and Bert are law firm associates working together on a big filing, and neither notices that the judge's name is spelled wrong. In their next review, Agnes is criticized for her lack of attention to detail, and Bert is praised for the subtlety of his argument.
- Samantha brings up a good idea in a meeting. No one pays attention to it – until her co-worker Joe brings up the same thought and gets all the credit.

INDIVIDUAL STRATEGIES

GET OVER YOURSELF

If you explain away your successes and internalize your failures, it's much easier for others to do the same. Doubt yourself and others will doubt you; be confident and it will increase others' confidence in you.

ACTUALLY PROVE IT AGAIN

It's not the most fun thing to hear, but we're going to tell you anyway. Sometimes the only effective way to succeed is to prove yourself again and again. But know your limits. The only thing more important than giving it your all is making sure you have something left over for yourself.

KEEP CAREFUL, REAL-TIME RECORDS

If others are likely to forget your achievements and remember your mistakes, you need to job their memory. The best way to do this is to keep careful records when you meet objective metrics of success. Do it in real time, before you forget to.

ADDRESS THE BIAS

Defending yourself against bias calmly and competently can be extremely effective. Try to appeal to people's sense of fairness ("We should be judging everyone on the same standard") rather than criticizing them for being unfair.

BUILD A VALUABLE SPECIALTY

Having a specialty – and excelling at it – is a great way to make yourself known both inside and outside the office. If you have a skill that others need, and a reputation for being good at it, you're going to be valuable regardless of your gender.

“TO GET AHEAD HERE, YOU HAVE TO BE SO AGGRESSIVE. BUT IF WOMEN ARE TOO AGGRESSIVE THEY’RE OSTRACIZED... AND IF THEY’RE NOT AGGRESSIVE ENOUGH THEY HAVE TO DO TWICE THE WORK.”²



THE TIGHTROPE

LIPSTICK OR CHAPSTICK – AND WHY DOES IT MATTER?

“I was routinely referred to as a ‘bimbo’ or a ‘bitch’ – too soft or too hard, and presumptuous, besides,” said Carly Fiorina of her stint as the CEO of Hewlett Packard. Women have to walk a tightrope between being seen as too masculine and too feminine. Women judged as masculine (aggressive, assertive, and self-assured) may be respected but not liked. Women judged as feminine (sensitive, agreeable, and community-oriented) may be judged as low on competence, and liked but not respected.

EXAMPLES OF TIGHTROPE BIAS:

- Violet is a popular employee at an advertising agency. She is well liked and always brings in cupcakes for their birthdays. But year after year, she’s denied a promotion (just one more year) because of doubts about her leadership ability.
- Wenjie has trouble getting a word in edgewise during conference calls. Her friend Eduardo suggests that she just interrupt – that’s what works for him. But when she tries his strategy, her boss tells her she needs to work on her social skills.
- Ruth has been assigned to serve on a time-intensive committee for three years in a row. It does important work, but no one values what she does. She asks to be assigned to a committee with more visibility, but she doesn’t get the assignment, and on her next review she’s criticized for not being a team player.

INDIVIDUAL STRATEGIES

SOLVING “TOO FEMININE” PROBLEMS

JUST SAY NO

Stop saying yes to assignments or requests that take up your time without advancing your career. To avoid not seeming like a team player, try offering alternative ways for an assignment to get done – suggesting someone else for that crucial committee work or, say, or proposing a rotation for who makes the coffee.

MAKE THE JOB WORK FOR YOU

Even work that’s not traditionally high-status can help you get ahead. When you take on an assignment, ask yourself the following questions: Am I getting credit for this time? Am I making any useful connections? Do I have an adequate budget? If the answer to any of these questions is no, think again before adding on to your responsibilities.

STOP APOLOGIZING

Women may say things like “I’m sorry” even when they haven’t done anything wrong. It doesn’t necessarily mean you’re sorry – but it can send the message, albeit inadvertently, that you’re in the wrong even when you don’t think you are. Don’t apologize unless you actually mean it.

HARNESS YOUR LADYPOWER

Many traits stereotyped as feminine can provides people with a huge leg up in the relationship-intensive worlds of law, business, and politics. Emotional intelligence, communication skills, and even letting yourself be vulnerable can be important tools for success. Just don’t let that get in the way of your effectiveness as a leader.

STRATEGIES THAT WORK FOR EVERYONE

LET THE FACTS SPEAK FOR THEMSELVES

Advertise your achievements without coming off like an egotist. Try “guerilla stealth.” bring up accomplishments in the context of helping someone else (“This strategy worked great for me”) or talk about your team’s successes as a group rather than yours as an individual.

SOLVING “TOO MASCULINE” PROBLEMS

STAND YOUR GROUND, WITH SOFTENERS

Women may face backlash for “masculine” things like asking for raises or volunteering an idea at a big meeting. Softeners – smiling, expressing modesty, or even wearing makeup – can go a long way towards fending off a negative reaction, if they’re properly balanced with confidence and assertiveness.

LAUGH IT OFF

Humor is a great way to send sensitive messages to sexist or clueless colleagues – and show at the same time that you’re not, well, humorless. And, just like picturing your audience in their underwear makes them seem less intimidating when you’re giving a presentation (or so the old piece of advice goes), having a sense of humor can help you maintain your equanimity in the face of things that seem infuriating or unfair.

MANAGE YOUR ANGER

Angry women can trigger stereotypes of high-powered females as ball-breakers, or alternately, as hormonal nutcases. Avoid stereotypes by showing your anger deliberately and making sure it’s clear that you’re controlling your emotions – and not the other way around.



"AT MY CAMPUS, MOST WOMEN ARE AFRAID TO EVEN ADMIT THAT THEY HAVE CHILDREN."³

MATERNAL WALL

DO WOMEN WITH CHILDREN OPT OUT OF HIGH-POWERED JOBS – OR ARE THEY PUSHED OUT?

The bias triggered by motherhood is by far the strongest form of gender bias. One prominent study found that mothers are 79% less likely to be hired, 100% less likely to be promoted, offered an average of \$11,000 less in salary, and held to higher performance and punctuality standards than women without children. Mothers face assumptions that being committed to work makes them bad mothers and that being committed to motherhood shows they are bad professionals.⁴

EXAMPLES OF MATERNAL WALL BIAS:

- Josephine takes two months of maternity leave after she has her first child. When she comes back to the office, she can't get assigned to any significant projects, and spends her time doing work typically assigned to someone much more junior.
- Jeannie finds out that big project she had been angling for was assigned to a male co-worker. When she asks why she was overlooked, her boss says since the project involved travel, he knew she wouldn't want it – she wouldn't want to be away from her kids that much.
- Emily leaves work early for a meeting in an office building across town. When she comes in the next day, her co-worker asks if the babysitter fell through.

INDIVIDUAL STRATEGIES

GET OVER YOURSELF

Buy the pre-made cookies at Safeway, get a Halloween costume-in-a-bag, leave the kids with a babysitter and go out on a date. Don't try so hard to be a perfect mother that you can't even be a good (or a sane) one.

DON'T LEAVE BEFORE YOU LEAVE

Sheryl Sandberg said it best. You're going to have to make some adjustments when you have kids. That doesn't mean you should start making those adjustments before you have kids. Show your commitment while you can, so that when you actually do need to step back a little, you'll have a career you can come back to.

SET CLEAR LIMITS

Don't let your family responsibilities take over your job – but don't let your job take over your life, either! Decide what parts of family time are non-negotiable and put them on your calendar as a meeting. They don't need to know you are at a parent-teacher conference.

DEMAND CHANGE AT HOME

If you're married or have a partner, your most valuable asset in the workplace is found at home. As Ruth Bader Ginsburg said, a supportive husband (or partner) "is a must for any woman who hopes to combine marriage and a career."

PRESENT SOLUTIONS, NOT PROBLEMS

When you're available to take on a project, let your supervisors know. If you want an alternative working arrangement, show how the work will get done and how your proposal will benefit the company.

HAVE YOUR COMEBACKS READY

You're going to reach a point when "I don't know how you do it!" is going to make you want to stab the speaker with a fork. Whether your style is sincere ("Yes, it's hard") or sarcastic ("The robot slave is a lifesaver"), have a go-to response to dismiss the comment and move on.

YOUR DIRTY LITTLE SECRET?

Do the people you work with know your kids' names, birthdays, and favorite foods – or do they know you have kids at all? This strategy goes both ways: many women decide to mention their kids as little as possible, while others are upfront on theory being that being a mother is nothing to hide.

"IF YOU'RE USED TO BEING THE ONE WOMAN, AND YOU'VE HAD TO BE THAT MUCH SMARTER AND THAT MUCH BETTER, THEN ALL OF SUDDEN... IT'S ALMOST LIKE YOU CAN'T WORK OTHER WOMEN BECAUSE YOU'RE SO USED TO BEING THE ONLY WOMAN." ⁵



TUG OF WAR

WHEN BIAS AGAINST WOMEN TURNS INTO FIGHTS AMONG WOMEN.

From Mean Girls to Queen Bees, we've all heard about how hard women can be on each other. Conflict among women is a touchy topic because explanations so often rehash tired stereotypes about how women are irrational, emotional, or hormonal. There's no denying this conflict exists, but it's not just catfights. Conflict among women often stems from bias against women. There are lots of different ways to deal with the pressures of being a professional woman, a tug of war can happen when women's coping strategies clash.

EXAMPLES OF TUG OF WAR BIAS:

- Retta is the only woman assigned to her secretary, Lisa, and Retta's work is consistently the last work Lisa gets done. When Retta complains that her work is being neglected, Lisa goes to HR and tells them she doesn't like working for women.
- Valerie has been at her new job a couple of weeks when an older colleague, Janice, pulls her aside and tells her the necklines on her blouses are getting her the wrong kind of attention. Valerie is angry at Janice for criticizing her style.
- Julie has always looked upon Madeline as something of a mentor, but when Julie comes up for a promotion to a position at Madeline's level, she's shocked to find out that Madeline did not really go to bat for her.

INDIVIDUAL STRATEGIES

THERE'S NO WRONG WAY TO BE A WOMAN

You're never going to come across someone whose life looks exactly like yours. That's probably for the best. Mentors and allies come in all different guises, and things aren't going to get better if we can't look past our differences to find what we have in common.

RECOGNIZE THE LIMITS OF THE SISTERHOOD

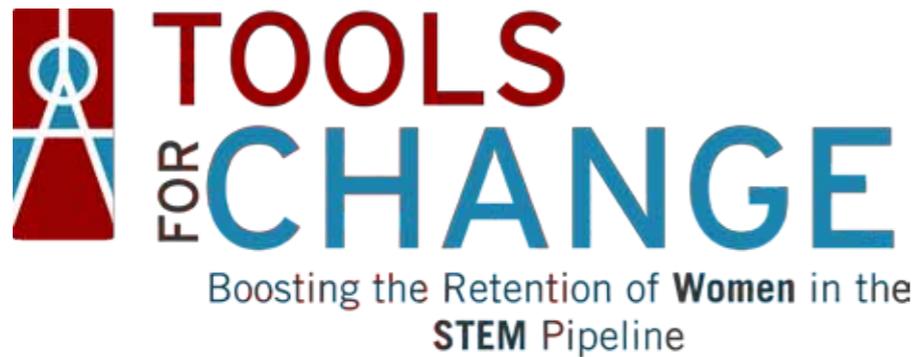
Should women always support each other just because they share a gender? That isn't always the way things work in real life – and there's no reason it should be. When you're dealing with an apple to your orange, try to treat the conflict the same way whether it's with a man or a woman.

GET INVOLVED IN WOMEN'S GROUPS

Being a woman in a male-dominated world can be very isolating. When there are no organic ways for a community of women to come together, a women's group can serve as a remedy for isolation, as well as a place to address some of the problems women confront.

FIND STRENGTH IN NUMBERS:

When women are in the minority, sex becomes a defining characteristic, which makes bias much worse – research shows women are less likely to be stereotyped if they make up at least a quarter of a group. Having other women around doesn't just mean the potential for a stronger community or understanding allies. It actually means there's less bias to deal with in the first place.



Women now represent a large part of the talent pool for research science but many studies show they are more likely than men to “leak” out of the science pipeline before obtaining tenure at a college or university (Committee on Science, Engineering, and Public Policy, 2007; Goulden, Mason & Frasch, 2009).

While women comprised 40% of the earned doctorates in science and engineering in 2006, only 19% of full-time full professors in science and engineering were women. Moreover, among women full professors in science and engineering,

- only 5% are Asian,
- just under 5% are African American,
- and just over 3% are Hispanic/Latina (National Science Foundation, 2009).

The brain drain among women severely impacts the long-term dependability of a highly trained U.S. workforce, and America’s global preeminence in the sciences is in question.

The most straightforward way to maintain a competitive workforce of trained professionals in the STEM (science, technology, engineering and mathematics) disciplines is to staunch the flow of women out of these professions. Two prominent researchers who have focused for more than two decades on documenting the reasons STEM disciplines’ have been unable to attract and retain women have partnered with the **Association for Women in Science (AWIS)** to leverage their extensive research by creating sustainable tools to level the playing field for women in academic STEM disciplines.

LEVEL THE PLAYING FIELD WORKSHOP

Now we are offering a series of short visual presentations aimed at a variety of audiences for use in different settings. These workshops review all we have learned about what works and what doesn’t in creating a workplace which doesn’t push out women out of the pipeline.

VISIT OUR WEBSITE AT
WWW.TOOLSFORCHANGEINSTEM.ORG

WORKSHOP TOPICS

- Do Babies Matter? I, II, III
- What Works for Women at Work
- Double Jeopardy? How Gender Bias Differs By Race
- Best Practices for Family Friendly Policies
- It’s Cheaper to Keep Her
- Some Things are Illegal

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MARY ANN MASON



As Dean of the Graduate Division at UC Berkeley (2000-2007), Mason has had responsibility for nearly 10,000 doctoral and professional graduate students. She has been in a unique position to evaluate the unprecedented admission of women, now nearing equal numbers, into advanced fields over the past thirty years. Her research on the impact of family on the lifetime careers of academic and professional women and men, and vice

versa called the Do Babies Matter project has garnered attention from individuals and institutions nationwide. Her data-driven advocacy has fostered major new family friendly initiatives for faculty and graduate students in the 10-campus University of California system, as was recognized in 2006 by an Alfred P. Sloan Foundation achievement award.

Mason's newest book expands on the ground-breaking Do Babies Matter? research. *Mothers on the Fast Track: How the New Generation Can Balance Career and Family* addresses the fundamental question faced by high achieving women: "Can women have it all?" *Mothers on the Fast Track* takes a hard look at the career paths of the first and second generation of women who entered the fast-track professions of academia, law, medicine, business, and the media in large numbers in the 1970s, 1980s, and 1990s. With data and interviews, it reveals the impact of motherhood in each of these professions, telling us why and when women leave the fast track, and what allows some to succeed.

Among her earlier books are two major works on child custody, *From Father's Property to Children's Rights: A History of Child Custody in America* and *The Custody Wars: Why Children are Losing the Legal Battles and What We Can Do About It*. She also co-edited (with Arlene Skolnick and Steve Sugarman) *All Our Families: New Policies for A New Century*. Her first book on work and family conflicts, *The Equality Trap*, was praised as "the best book ever written on American working mothers" (Caitlin Flanagan, *The Atlantic*, 2004).

JOAN C. WILLIAMS



Joan C. Williams has played a central role in reshaping the debates over women's advancement for the past quarter-century. Described as having "something approaching rock star status" by *The New York Times*, Williams was awarded the American Bar Foundation's Outstanding Scholar Award (2012), the Elizabeth Hurlock Beckman Award (2012) and the ABA's Margaret Brent Award for Women Lawyers of Achievement (2006). In

recognition of her interdisciplinary work, Williams gave the 2008 Massey Lectures in American Civilization at Harvard University, delivered in prior years by (among others) Eudora Welty, Gore Vidal and Toni Morrison.

Williams, who is Distinguished Professor of Law and Hastings Foundation Chair at University of California, Hastings College of the Law, has authored or co-authored six books. She has written over seventy law review articles, including one listed in 1996 as one of the most cited law review articles ever written. Her work has been excerpted in casebooks on six different topics.

As Founding Director of **WorkLife Law (WLL)**, Williams has played a leading role in documenting workplace bias against mothers, leading to the Equal Employment Opportunity Commission's 2007 Guidance on Caregiver Discrimination. Her article "Beyond the Maternal Wall: Relief for Family Caregivers Who Are Discriminated Against on the Job," 26 *Harvard Women's Law Review* 77 (2003)(co-authored with Nancy Segal), was prominently cited in the landmark case, *Back v. Hastings on Hudson Union Free School District*, 365 F.3d 107 (2d Cir. 2004). Williams has organized social scientists to document workplace bias against mothers, notably in a 2004 special issue of the *Journal of Social Issues* titled "The Maternal Wall" (co-edited with Monica Biernat and Faye Crosby), which received the Distinguished Publication Prize of the Association for Women in Psychology.

Williams also has played a central role in documenting how work-family conflict affects working-class families, through reports such as "One Sick Child Away From Being Fired" (2006), "Three Faces of Work-Family Conflict" (2010) (co-authored by Heather Boushey of the Center for American Progress), and "Improving Work-Life Fit in Hourly Jobs" (2011). Williams' current research focuses on how work-family conflict differs at different class locations; on the "culture wars" as class conflict; on how gender bias differs by race; and on the role of gender pressures on men in creating work-family conflict and gender inequality. **Follow her work on her Huffington Post blog.**

AWIS

ASSOCIATION FOR WOMEN IN SCIENCE

In Partnership With

AWIS is today's premiere leadership organization advocating the interests of women in science and technology.

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STAY IN TOUCH

The Center for WorkLife Law
UC Hastings College of the Law
200 McAllister St.
San Francisco, CA 94102

Office Phone: (415) 565-4640
Office Fax: (415) 581-8848

email: info@worklifelaw.org
www.worklifelaw.org

WWW.TOOLSFORCHANGEINSTEM.ORG

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