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INFORMATION
TECHNOLOGY

Resources for Retaining and Advancing Mid-career Technical Women

GUIDE



An NCWIT Industry Resource

Contact us at info@ncwit.org for more information.

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TABLE OF CONTENTS

| | |
|---|-----------|
| INTRODUCTION | 3 |
| What is the purpose of this guide? | |
| Who should use this guide and how? | |
| How is the guide organized? Using the NCWIT Industry Change Model | |
| CHAPTER 1: TOP LEADERSHIP SUPPORT & INSTITUTIONAL ACCOUNTABILITY | 5 |
| CHAPTER 2: SUPERVISORY RELATIONSHIPS | 6 |
| CHAPTER 3: RECRUITMENT AND SELECTION | 6 |
| CHAPTER 4: TALENT DEVELOPMENT AND MENTORING | 7 |
| CHAPTER 5: PERFORMANCE EVALUATION AND PROMOTION | 8 |
| CHAPTER 6: SUPPORT FOR COMPETING RESPONSIBILITIES | 9 |
| CHAPTER 7: REDUCTION OF SUBTLE BIASES AND BARRIERS | 10 |
| CHAPTER 8: ONGOING EVALUATION OF CHANGE EFFORTS | 11 |

This resource was produced in partnership with the Mid-career Project Team of NCWIT's Workforce Alliance:



INTRODUCTION

What is the purpose of this guide?

This guide is intended to help those who work with or have influence over the careers of mid-career technical women and the environments where they work. Managers and others can use this guide to find the resources they need to create highly-productive, diverse technical teams.

For ease of access, this guide catalogues NCWIT's existing resources, as well as company-specific resources, organizing them by the key "change areas" identified in the NCWIT Change Model for Industry (see Figure 1): 1) Top Leadership Support and Institutional Accountability, 2) Supervisory Relationships, 3) Recruitment and Selection, 4) Talent Development and Mentoring, 5) Performance Evaluation and Promotion, 6) Support for Competing Responsibilities, 7) Reduction of Subtle Biases and Barriers, and 8) Ongoing Evaluation of Change Efforts.

Who should use this guide and how?

In general, this guide can be used to help you:

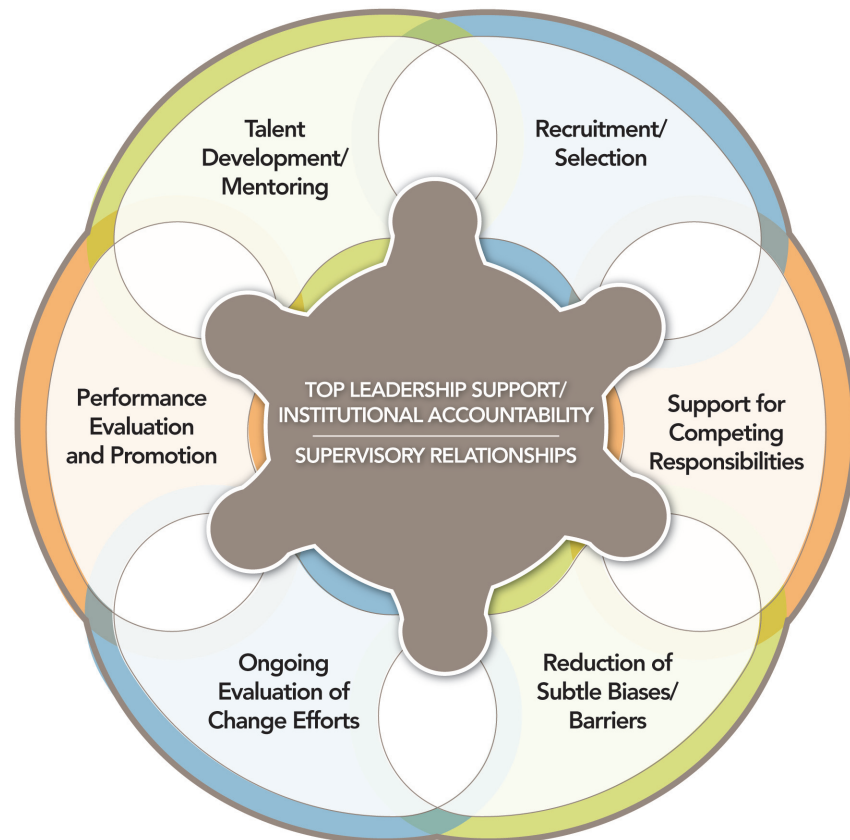
- Better understand the issues facing mid-career technical women.
- Find resources to help address these issues and better retain technical women and other underrepresented groups.
- Raise awareness by passing information and suggested resources along to others who may be interested or in a position to influence technical work environments.

Anyone who has influence over or works with mid-career technical women can benefit from this guide. Below are examples of how different individuals might use this guide:

- **Supervisors of mid-career technical women:** Use this guide to inform yourself about issues facing mid-career technical women and other underrepresented groups. Find resources to help you create and manage a diverse technical team. You may also use some of these resources to raise awareness and motivate change in other parts of the organization. In particular, check out the links to NCWIT's *Supervising-in-a-Box Series* listed in each chapter under NCWIT Resources.
- **Human resources personnel:** Use the information in the Recruitment and Selection chapter and in the Talent Development & Performance Evaluation chapter to examine recruiting processes, current performance evaluation instruments, and larger talent management systems for hidden biases.
- **Colleagues of mid-career women:** Use the information and resources in the chapters you find most relevant to raise awareness and motivate change where you have influence. Pass along these resources to others who may be interested, including mid-career women themselves. Also, make your female colleagues aware of these resources.
- **Mid-career technical women:** Use the information in this guide to help you identify what kinds of information you need to know to help you succeed and advance within the company.
- **Senior leadership:** Use the information to help you assess the current environment, identify the key areas where change is needed within the organization, and lead or plan change initiatives in those areas.

How is the guide organized? Using the NCWIT Change Model for Industry

The latest research on technical women identifies several key areas where change is needed in order to recruit and retain a diverse technical workforce. It is important that companies take a systematic or “ecosystem” approach; isolated or piecemeal efforts are not enough for sustained change. The model below summarizes the key areas that need to be addressed in order to create this systemic change. Top leadership support and supervisory relationships are at the center of the model because they are foundational components. Without these foundational components, all of the other efforts in the outer circle will be less effective.



The remainder of this guide is arranged around this model. Each chapter focuses on one of the above areas and includes the following components:

- A brief summary of research in that area
- Links and descriptions of practical NCWIT resources for implementing practices in that area

An appendix including links and brief descriptions of existing company-specific resources/ programs/policies may be included.

This guide is meant to be a high-level overview of the key barriers to advancing mid-career women and the existing resources available to address these barriers. More detailed information on implementing practices, programs, or policies to address these barriers is available by clicking on the links to individual resources listed in each section.

CHAPTER 1: TOP LEADERSHIP SUPPORT & INSTITUTIONAL ACCOUNTABILITY

Research Summary:

Leadership and accountability matter. Clear and visible support from top leaders is crucial if efforts to increase diverse participation are to be successful. Ensure that leaders of diversity efforts include high-level executives and senior employees who actually have the authority to make, carry out, and enforce necessary decisions. These leaders need to establish a core team or committee to lead diversity initiatives, and leaders need to be regularly and visibly involved with these committees. They also need to:

- set clear, measurable goals for diversity and explain how they relate to business goals.
- require and support ongoing evaluation of these goals.
- hold managers accountable for promoting as well as hiring diverse employees.
- involve members of majority groups (e.g., white males) in leading diversity efforts.
- regularly promote and make visible diversity goals, efforts, and accomplishments.

NCWIT Resources — Links/Descriptions

These resources can be used to raise awareness with senior leadership or can be used by senior leaders to communicate consistent diversity messages and goals throughout the company.

REPORT

- **Women in IT: The Facts — Business Case “Teaser” & Full Report** — The teaser is an attention-getting flyer that succinctly makes the business case for increasing diverse participation in technology and can be useful for engaging senior leadership in supporting diversity efforts. The Flash version and full report are available at www.ncwit.org/thefacts. Contact info@ncwit.org if you would like to order hard copies of the “teaser” or full report.

PROGRAMS-IN-A-BOX

- **Supervising-in-a-Box Series: Supervisors as Change Agents** — The 5th box in the *Supervising Program-in-a-Box Series* contains a set of tools and talking points that supervisors and others can use to raise awareness and make the business case with senior leadership. Available at www.ncwit.org/supervising

GUIDE

- **Strategic Planning for Increasing Women’s Participation in the Computing Industry** — This guide takes leaders through the steps necessary to put together a coherent, systemic plan for change. Available at www.ncwit.org/industryworkbook

CASE STUDY

- **NCWIT Promising Practices: How Can Companies Achieve Organizational Diversity? Establishing Institutional Accountability** — This case study illustrates how one company established diversity goals, explicitly connected these to business goals, and held the company accountable for meeting these goals. Available at www.ncwit.org/institutionalaccountability

Company-specific Resources

This guide may include an appendix with existing company-specific resources, programs, or policies, if your company chose to include these.

CHAPTER 2: SUPERVISORY RELATIONSHIPS

Research Summary:

Focusing efforts on positive supervisory relationships is crucial for two reasons: 1) research suggests that the supervisory relationship is one of the most significant factors in an employee's decision to leave or stay with a company, and 2) the supervisory relationship exerts significant influence on all of the other levels of reform, including employee development and mentoring, performance reviews and promotion, access to flexible schedules, recruiting and selection, and subtle biases that shape team interaction.

Supervisors should be:

- aware of how unconscious bias and institutional barriers shape their responsibilities in four areas: 1) recruitment and selection, 2) employee development, 3) team and project management, 4) performance evaluation and promotion procedures.
- held accountable for hiring and promoting a diverse range of employees.
- held accountable for providing access to mentoring and flexible work schedules.
- held accountable for examining and reducing bias in performance reviews and in other aspects of team management.

NCWIT Resources – Links/Descriptions

PROGRAMS-IN-A-BOX

- **Supervising-in-a-Box Series** — This five-part series provides information and concrete tools and templates that help supervisors reduce unconscious bias in five different supervisory job functions: 1) Recruitment/Selection, 2) Employee Development, 3) Team/Project Management, 4) Performance Review/Talent Management, 5) Supervisors as Change Agents. Available at www.ncwit.org/supervising

Company-specific Resources

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CHAPTER 3: RECRUITMENT AND SELECTION

Research Summary:

Implementing strategies for reducing bias and diversifying the candidate pool are important if technical companies are to have many women to retain and advance. The following are some strategies for doing so:

- Examine job announcements and criteria for bias.
- Advertise and recruit in a variety of venues that target diverse audiences.
- Systematically track demographics of candidate pools and successful hires.
- Educate interviewers and/or search committees about unconscious bias and ways to reduce it.
- Actively seek out alternative pathways for hiring (e.g., "on-ramping" programs that help employees return to work after an extended absence, programs that help employees within the company transition from non-technical to technical careers, military spouse programs, and other similar programs).

NCWIT Resources – Links/Descriptions

PROGRAMS-IN-A-BOX

- **Supervising-in-a-Box Series** — The Recruitment/Selection Box contains tools to help supervisors, HR personnel, and others reduce bias in the recruitment and hiring processes. Available at www.ncwit.org/supervising

CASE STUDY

- **NCWIT Promising Practices: How Can Companies Attract and Retain Mid-Career Female Employees? Constructing On-Ramps** — Illustrates how one company established a successful on-ramp program to encourage women who had been temporarily out of the workforce to re-enter technical careers. Available at www.ncwit.org/onramps

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CHAPTER 4: TALENT DEVELOPMENT AND MENTORING

Research Summary:

Both technical men and women report valuing opportunities for technical professional development above and beyond other work benefits. Technical men, however, report being able to find informal professional development opportunities at a higher rate than do women (82% versus 62%, respectively). This is likely due, in part, to isolation, a lack of role models or available mentors, unconscious biases, and other subtle dynamics that make it more difficult for women to access these informal opportunities. This gap also could result from the fact that competing life responsibilities still fall more heavily on women who may have less time to access these opportunities outside of work. As a result, providing formal opportunities is particularly important for retaining and advancing underrepresented employees.

The following strategies and resources are important for successful mentoring.

- Make mentoring programs easily available for all employees. Provide access to a diverse range of mentors — mentors who are both similar to and different from the employee.
- Encourage mid-career women to mentor and serve as role models for junior women and other junior employees — as long as mentoring is a valued activity (see next bullet).
- Ensure that mentoring is formally valued (e.g., reflected on mentors' performance evaluations).
- Create company-wide opportunities for all technical employees to participate in technical professional development on company time.
- Create specific opportunities for leadership and management development.
- Implement learning communities such as patenting or innovation communities.
- Educate supervisors about the importance of encouraging employees to take part in mentoring programs and rewarding mentoring as a professional activity.
- Create awareness about diverse communication styles and how these styles can shape supervisors' perceptions of and professional advice to employees. Ensure that managers know how to encourage and value a range of communication styles.

NCWIT Resources – Links/Descriptions

PROGRAMS-IN-A-BOX

- **Mentoring-in-a-Box: Technical Women at Work** — Provides information and concrete tools and templates for implementing an effective mentoring program for technical women. Available at www.ncwit.org/imentor
- **Supervising-in-a-Box-Series: Employee Development** — Provides information and concrete tools for helping supervisors reduce unconscious bias and better develop all of their team members' strengths. Available at www.ncwit.org/supervising

CASE STUDIES

- **NCWIT Promising Practices: What Makes Electronic Mentoring Effective? MentorNet – www.MentorNet.net**. Available at www.ncwit.org/mentornet
- **NCWIT Promising Practices: How Do You Provide Intentional Role Modeling? Regional Celebrations of Women in Computing (R-CWIC)**. Available at www.ncwit.org/rcwic
- **NCWIT Promising Practices: How Can Companies Promote Innovation with Diverse Employees? Patenting Learning Communities**. Available at www.ncwit.org/patentinglearning

Company-specific Resources

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CHAPTER 5: PERFORMANCE EVALUATION AND PROMOTION

Research Summary:

Gender bias permeates the promotion and performance review process. Almost half (46%) of technical women report that gender bias influences performance evaluations. Study after study on recommendation letters and performance evaluations confirms this perception of gender bias. For example, in one study, women had to produce 99 “impact factors” to be judged as qualified as men with 20 “impact factors.” Unconscious biases also pervade wider talent management systems and promotion processes. The following are important steps for reducing these unconscious biases.

- Examine your performance evaluation criteria for unintended biases.
- Examine your company's promotion criteria and processes for unconscious biases. Ensure that measurable steps for promotion are clearly articulated.
- Make career path coaching a part of company mentoring programs and supervisory training.
- Include participation in mentoring, employee development, and diversity work as a performance evaluation or promotion criteria.
- Examine task assignment processes for bias. Educate supervisors and others about how bias shapes who gets assigned to what tasks and what teams.
- Create awareness about diverse communication styles and how these styles can shape supervisors' interactions with and assessment of employees. Ensure that a range of communication styles are encouraged and valued.

NCWIT Resources – Links/Descriptions

PROGRAMS-IN-A-BOX

- **Supervising-in-a-Box Series: Performance Review/Talent Management**. Helps supervisors (and others) reduce unconscious biases in performance evaluations, promotion, and other aspects of talent management. Available at www.ncwit.org/supervising

CASE STUDY

- **NCWIT Promising Practices: How Can Reducing Unconscious Bias Increase Women's Success in IT? Avoiding Unintended Bias in Letters of Recommendation.** Available at www.ncwit.org/biasletters

Company-specific Resources

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CHAPTER 6: SUPPORT FOR COMPETING RESPONSIBILITIES

Research Summary:

Interestingly, both men and women believe that being family-oriented is not a characteristic associated with success in technology. For example, in *Climbing the Technical Ladder*, a recent study of technical workers, only 7.3% of mid-level technical women and men agreed that successful technologists are family-oriented. At the same time, however, more than 60% of these same men and women described themselves as family-oriented. Support for competing responsibilities is a crucial practice for retaining all talent, but particularly for women who, in the current system, are more than twice as likely as men to have a partner who also works full time.

- Create telework, flexwork, and on- and off-ramp opportunities that make it easier for employees to take time off and return to work. If employees request these opportunities, find out what the options in your company are and work with them to temporarily reduce hours and expectations as appropriate.
- Ensure that taking advantage of flexible work or on- and off-ramp opportunities is valued for both women and men. Do not penalize or stigmatize employees for utilizing these programs or policies.
- Look for ways that flexible schedules are subtly or explicitly penalized in promotion decisions and provide ways to remedy this problem.
- Examine resource allocation policies to see if they unfairly penalize flex-time workers or teams with flex-time workers.
- Model flexible practices at the executive and supervisory levels. This helps make these practices culturally acceptable.

NCWIT Resources – Links/Descriptions

PROGRAMS-IN-A-BOX

- **Supervising-in-a-Box: Team/Project Management.** Available at www.ncwit.org/supervising

CASE STUDY

- **NCWIT Promising Practices: How Can Companies Attract and Retain Mid-career Female Employees? Constructing On-ramps.** Available at www.ncwit.org/onramps

Company-specific Resources

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CHAPTER 7: REDUCTION OF SUBTLE BIASES AND BARRIERS

Research Summary:

Subtle, everyday instances of bias are extremely important because they are difficult to detect and often build upon each other, creating environments that push underrepresented employees out the door. These instances include:

- **Microinequities** — subtle, cumulative messages that devalue, discourage, and impair performance in the workplace. These messages include looks, gestures, or tone of voice, and often accumulate in ways that lead employees to underperform, withdraw from co-workers, and ultimately leave the workplace.
- **Tokenism** — members from diverse groups are often expected by others to “speak for” or “represent” the group as a whole. Diverse members are expected to be able to “relate to” customers or clients who are also members of the same or similar identity group/s.
- **Stereotype Threat** — the fear or anxiety that our actions will confirm negative stereotypes about our “group” or about ourselves as members of a group. These fears and anxieties reduce feelings of competence and trust, and can negatively affect performance, confidence, and risk-taking behavior.
- **“Gender- or Color-blindness”** — comments such as “I don’t see color or gender; you do your work well on my team and you’ll succeed!” While these are often well-intentioned, they ignore the different life circumstances faced by women and other underrepresented groups.
- **The “Glass Cliff” Phenomenon** — members from underrepresented groups are promoted too early or put in charge of tasks they do not yet have the expertise or authority to carry out. While this is sometimes done to try to meet diversity requirements, meeting these requirements in this way may set these employees up to fail.

Educate managers and others about how these dynamics shape everyday interactions that add up over time. Likewise, create awareness about how diverse communication styles shape supervisors’ perceptions of and interactions with employees.

NCWIT Resources – Links/Descriptions

PROGRAMS-IN-A-BOX

- **Supervising-in-a-Box Series.** See the Table of Contents in each of the five boxes for more information on the above subtle biases. Real-life scenarios for discussion are also included. Available at www.ncwit.org/supervising
- **Diversity Dynamics Training Guide.** This Guide can be found in Box 3 of the *Supervising-in-a-Box Series: Team/Project Management*. Contains tips for using the background and training information in the Supervising Boxes. Available at www.ncwit.org/supervising
- **What to Say When a Colleague Says... Talking Points.** In Box 5 of the *Supervising-in-a-Box Series: Supervisors as Change Agents*. Available at www.ncwit.org/supervising
- **Tips for Facilitating Healthy Team Debate.** In Box 3 of the *Supervising-in-a-Box Series: Team/Project Management*. Available at www.ncwit.org/supervising

TALKING POINTS

- **Institutional Barriers & Their Effects: How Can I Talk to Colleagues About These Issues?** Available at www.ncwit.org/ib
- **How Do I Talk About Unconscious Bias and Its Effects?** See Talking Points section in Box 5 of the *Supervising-in-a-Box Series: Supervisors as Change Agents*. Available at www.ncwit.org/supervising

CASE STUDIES

- **NCWIT Promising Practices: How Can Reducing Unconscious Bias Increase Women's Success in IT? Avoiding Unintended Bias in Letters of Recommendation.** Available at www.ncwit.org/biasletters
- **NCWIT Promising Practices: How Can Reducing Unconscious Bias Increase Women's Success in IT? Avoiding Gender Bias in Recruitment/Selection Processes.** Available at www.ncwit.org/biasselection
- **NCWIT Promising Practices: How Do Stereotype Threats Affect Retention? Better Approaches to Well-intentioned, but Harmful Messages.** Available at www.ncwit.org/stereotypethreat

Company-specific Resources

This guide may include an appendix with existing company-specific resources, programs, or policies, if your company chose to include these.

CHAPTER 8: ONGOING EVALUATION OF CHANGE EFFORTS

Ongoing evaluation of change efforts is important for determining the effectiveness of these efforts and for refining and improving these efforts. NCWIT *Programs-in-a-Box* contain evaluation plans that you can use to assist you or you can develop your own internal measures. If desired, NCWIT social scientists are available to help you develop an evaluation plan tailored to your company's specific change efforts.

NCWIT Resources – Links/Descriptions

WORKBOOKS AND GUIDES

- **Strategic Planning for Increasing Women's Participation in the Computing Industry.** Provides a blueprint for developing and evaluating a strategic plan to increase women's participation. Available at www.ncwit.org/industryworkbook
- **Evaluating a Mentoring Program.** Provides a step-by-step plan with example metrics for evaluating a workplace mentoring program. Available at www.ncwit.org/mentoringeval

Company-specific Resources

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